Video Cassette Recorder

Service Manual

NO.289C2180

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INTRODUCTION

This manual provides service information for our VHS Video Cassette Recorder. It describes the principles and adjustments of mechanical and electrical operation for this model.
Service procedures given herein cover only field maintenance services. Adjustments which require high-level instruments, jigs, and techniques are excluded since they should be performed at the factory.
Due to design modifications, the servicing procedures and data given in this manual are subject to possible change without prior notice.

IMPORTANT SAFETY PRECAUTION

Prior to shipment from the factory, our products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ symbol are critical for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements. Examples: RF converters, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   - Wires covered with PVC tubing
   - Double insulated wires
   - High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   - Insulation tape
   - PVC tubing
   - Spacers
   - Insulation sheets for transistors
5. When replacing AC primary side components (transformers, power cords, etc.), wrap ends of wires securely on the terminals before soldering.
6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. When a power cord has been replaced, check that force (maximum applied force should be 20-30 lbs.) in any direction will not loosen it.
9. Also check areas surrounding repaired locations.
10. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside of unit.

SAFETY CHECK AFTER SERVICING

1. **Insulation resistance test**
   Confirm specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, video and output terminals, etc.).
2. **Dielectric strength test**
   Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio output terminals, etc.).
3. **Clearance distance**
   When replacing primary circuit components, confirm specified clearance distance.

ELECTRICAL ADJUSTMENT

1. PLAYBACK SWITCHING POINT ADJUSTMENT

Mode : PLAY

Test Signal : TPS-13 or 13S

Check Point : FIP

Adjustment Point : CH UP/DOWN (▲/▼) KEY

Adjustment :

(1) Solder a 30cm long piece of lead to the PG-TP at the back of the Main PCB (Figure 1 below) and wind it round the back. (Take care not to short circuit nearby components.)

(2) Playback the test tape and allow the automatic ATR to finish. The ATR is finished when "ATR" on the FIP stops blinking.

(3) Connect the lead attached in step (1) to the Tuner (ETA01) earth line. (Make sure that the lead can not come loose.)

(4) Adjust the display for FIP (H701) with the CH UP/DOWN (▲/▼) keys until it is as shown in Figure 2 Display B below.

(5) Remove the lead.

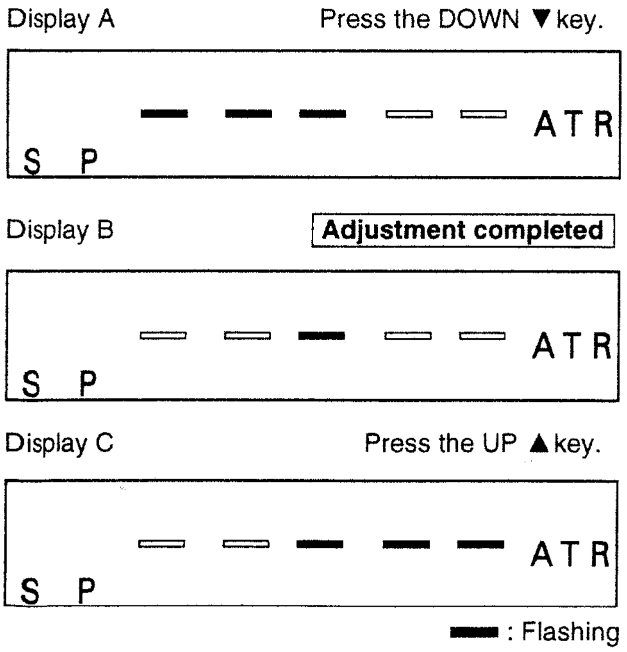

Display A
Press the DOWN ▼ key.
ATR
S P
Display B
Adjustment completed
ATR
S P
Display C
Press the UP ▲ key.
ATR
S P
▬ : Flashing

Figure 2

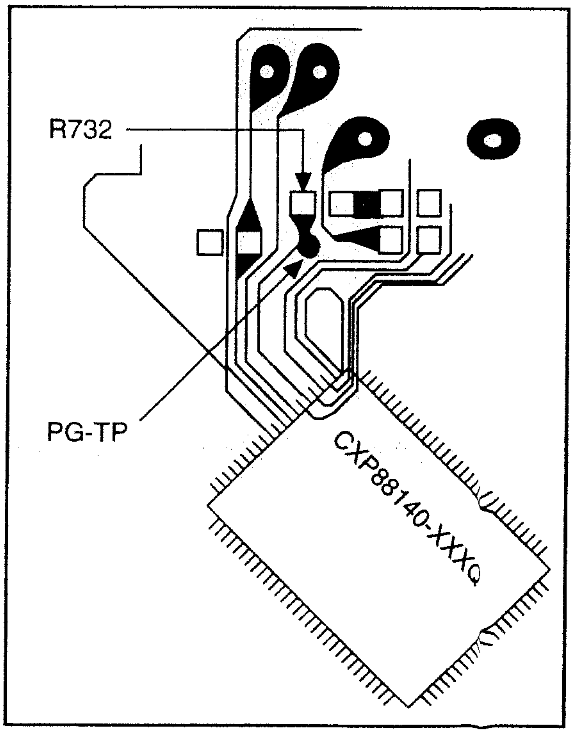
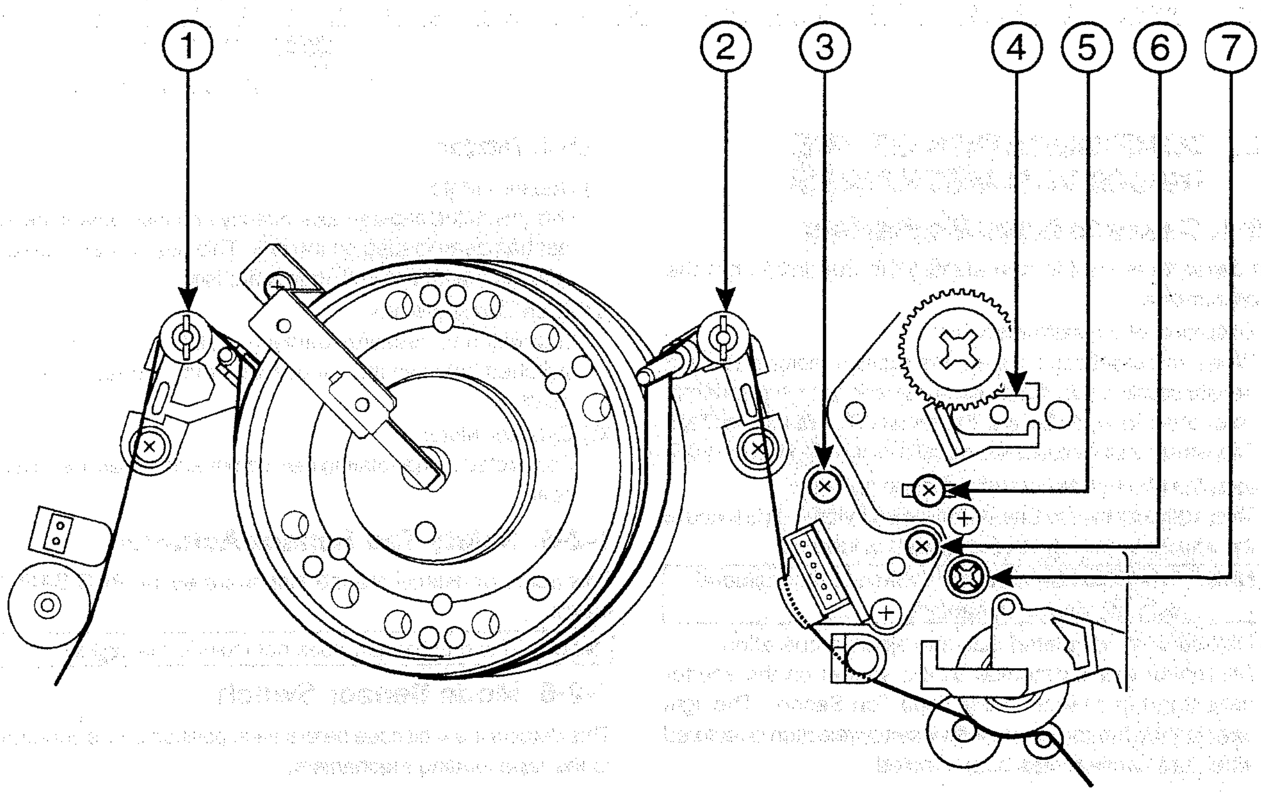

R732
PG-TP
CXP88140-XXXQ

Figure 1

MECHANICAL ADJUSTMENT

DECK ADJUSTMENT POINTS

① FM Waveform (Envelope) entrance adjustment screw
② FM Waveform (Envelope) exit adjustment screw
③ Audio Azimuth adjustment screw
④ Control Head phase (X-value) adjustment point
⑤ Audio/CTL Head height adjustment screw
⑥ A/C Head tilt adjustment screw
⑦ RG Post height adjustment screw



1. MECHANISM CONTROL

The mechanism includes its own mode as well as the operation mode of the VCR as shown in the chart below. This mode serves an important function in working to protect the tape by passing through the VCR when the mode is switched over.

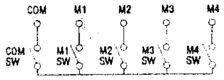
The movement of the mechanism mode is performed by the control signal of the loading motor's rotary control circuit. With this control, the operation mode position is detected by the Mode switch (4-bit mode data output), Cassetle In switch, tape top sensor and the tape end semsor which detects all modes of the mechanism.

1-1. MODE SW

The composition of the 4 terminals, COM DATA 1, 2, 3, 4, are treated as a 4 bit signal.

POSITION NO		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
POSITION NAME		EJECT		S-REW		ES	LOAD		REW		FF		STOP		PLAY		F-SLOW		CT		R-SLOW		REVERSE	
SWITCH ON/OFF TIMING H=OFF L=ON	M1 SW	■		■		■	■														■		■	
	M2 SW	■		■							■		■						■				■	
	M3 SW												■		■		■				■		■	
	M4 SW			■		■			■		■		■		■									
	COM SW	■		■		■	■		■		■		■		■		■		■		■		■	
POSITION CODE 1=OFF 0=ON	COM-M1	0	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1
	COM-M2	0	1	0	1	1	1	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	0	1
	COM-M3	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	1	0	1	0	1
	COM-M4	1	1	0	1	0	1	1	0	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1

MODE SW Equivalent Circuit



1-2. CONFIGURATION OF THE TN6500 VCR MECHANISM

1-2-1. Cassette Drive Mechanism

The cassette is loaded and ejected via the drive from the capstan motor.

(A) Detection of cassette insertion
When an cassette is inserted, the capstan motor starts and simultaneously causes the shutter on the main unit to break the light beam of the Tape Top Sensor. This capstan FG pulse and the Tape Top Sensor change cause the cassette to be pulled into the VCR.

(B) Detection of completed cassette insertion operation
This is detected by the Cassette Insertion Switch that is linked to the actuator activated when a cassette is inserted.

Note: The Cassette Insertion Switch is not included with the deck mechanism.

(C) Detection of completed cassette ejection operation
As above, this is detected by the shutter on the shutter detecting the change in the Tape Top Sensor. The light beam that is broken by cassette insertion/ejection is restored when the cassette has been ejected.

1-2-2. Tape Loading Mechanism

Tape loading mechanism is the mechanism that is loaded with the tape loading motor linked to the mode switch. The following actions occur when the 4-bit position code output from the mode detection switch is used.

(A) The tape is pulled out of the cassette and wound on the cylinder. (tape loading)

(B) The tape is returned to the cassette. (tape unloading)

(C) Function are switched so that each mechanism can operate.

1-2-3. Tape Transportation Mechanism

The tape is fed through the VCR by the action of the capstan, pinch roller and reel drive.

1-2-4. Motor

(A) Capstan Motor
The drives the capstan axle directly and also drives the reel that has been loaded on the belt. This motor is also used to drive the cassette loading mechanism.

(B) Tape Loading Motor
In addition to cassette loading/unloading, this motor also switched between the various operating modes(PLAY, FF/REW etc.)

(C) Cylinder Motor
Connected to the rotating head drum and drives the rotating head.

1-2-5. Safety Tab Sensor/Actuator

This actuator detects the tab that operates the REC SAFETY switch.

Note: This mechanism does not include the switch.

1-2-6. Mode Sensor Switch

This detects the 4-bit code before each position and is connected to the tape loading mechanism.

1-2-7. Take-up/Supply Reel Sensor Photoelectric Cell

A luminous diode and phototransister at the fixed position for the cell comprise the reel sensor. (Pulse rate=8pulses/rotation)

Note: This mechanism does not include the luminous diode or the phototransister.

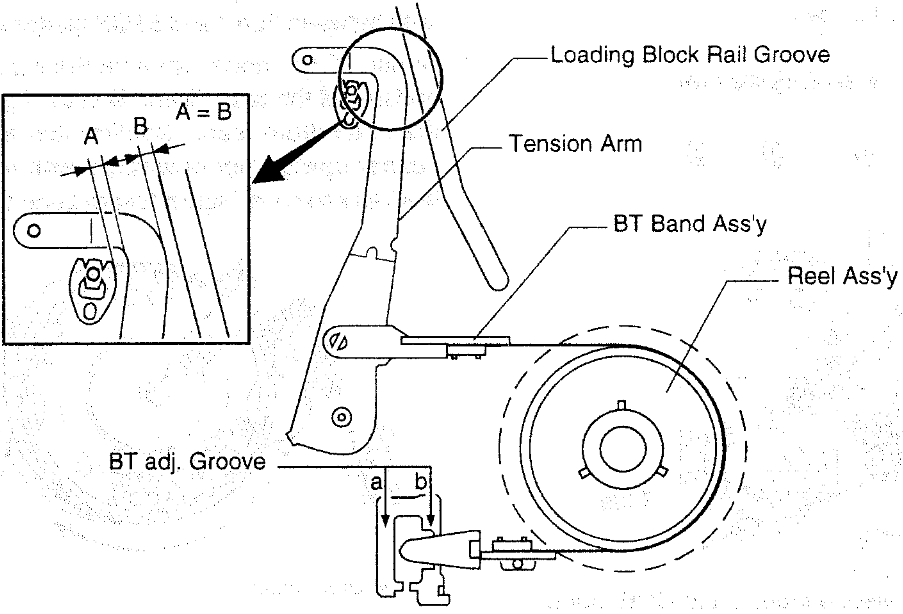
1-2-8. Tape Start/End Sensor Photoelectric Cell

A luminous diode and phototransister at the fixed position for the cell comprise the start/end sensor. (Pulse rate=8pulses/rotation)

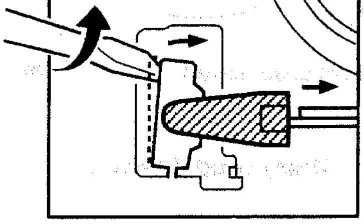
Note: This mechanism does not include the luminous diode or the phototransister.

2. ADJUSTMENT OF BT TORQUE IN PLAY MODE (ADJUSTMENT OF THE TENSION ARM POSITON)

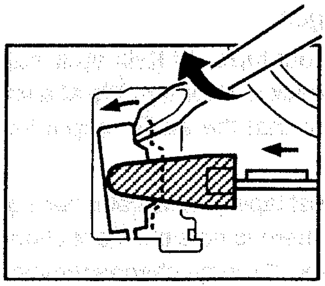
1. Remove the FL Ass'y.
2. Rotate the loading pulley with your finger until PLAY mode is reached.
3. Insert a standard screwdriver into the BT adjustment groove (a or b) of the main chassis. Twist the screwdriver left and right to adjust gap(A) and gap(B) so that they are the same.


A = B
A
B
Loading Block Rail Groove
Tension Arm
BT Band Ass'y
Reel Ass'y
BT adj. Groove
a
b

- To reduce the gap (BT torque reduction), insert into adjustment groove "a" and twist counter-clockwise as shown in the figure below.



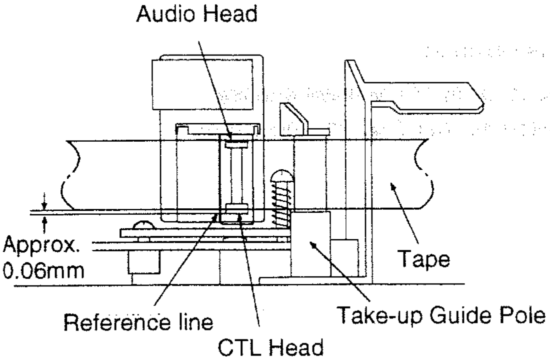
- To increase the gap (BT torque increase), insert into adjustment groove "b" and twist clockwise as shown in the figure below.



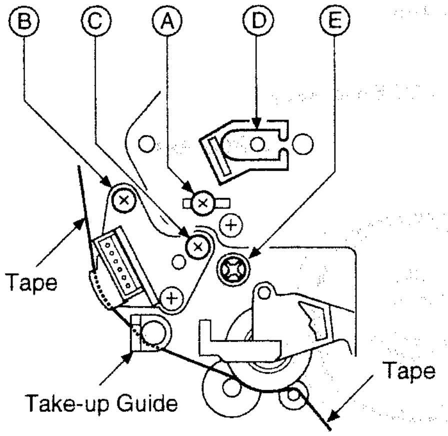
CAUTION: Do not twist at too much of an angle. Doing so will have adverse effects on other areas as well.

3. AUDIO/CTL HEAD

3-1. TAPE TRANSPORT ADJUSTMENT



Audio/CTL Head Adjustment



1. Using an ordinary cassette tape, set to CUE mode.
2. Turn screw Ⓒ and adjust for smooth transport at the take-up guide.

3-2. AUDIO/CTL HEAD HEIGHT AND AZIMUTH ADJUSTMENT

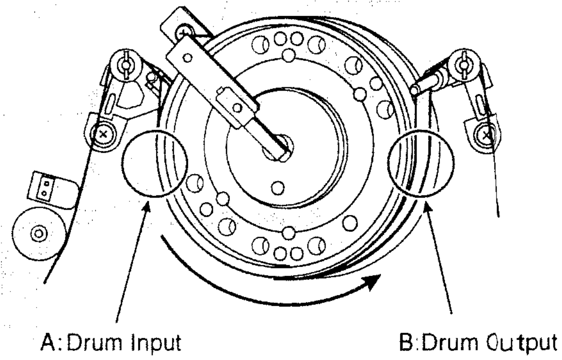
1. Connect the noise meter to the audio output.
2. Play the test tape (1 KHz color bar signal), turn nut Ⓐ back and forth a little at a time to set maximum audio output level. (Rotate in a clockwise direction to adjust the settings.)
3. Play the test tape, (8 KHz stair step signal), turn screw Ⓑ back and forth a little at a time to adjust the azimuth so that the audio output level will reach a maximum.
4. Play the test tape (1 KHz color bar signal), and make sure that there is no significant change in the audio output level. If a large change remains, turn screw Ⓒ back and forth a little at a time to adjust so that the level change will reach a minimum.
5. When all adjustment is finished, lock up screw Ⓑ.

4. TAPE TRANSPORT SYSTEM CHECKS AND ADJUSTMENT

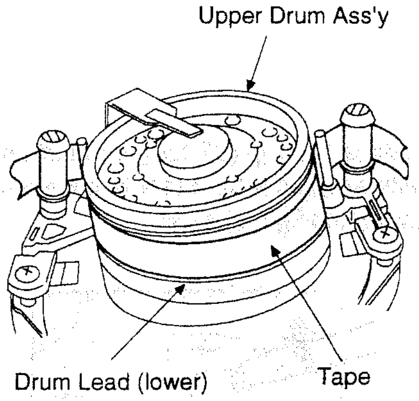
The tape transport system has been precisely aligned at the factory and normally does not require readjustment. The following steps are therefore necessary only in cases of frequent use or when replacing parts which have an effect on the tape transport system.

4-1. TAPE TRANSPORT CHECK

1. Using an ordinary cassette tape, switch back and forth between PLAY and STOP modes several times.
2. During PLAY mode, observe the input and output portions of the tape (A and B in the figure below) of the head drum lead. Confirm that the tape slips neither upward nor downward with respect to the lead as shown in Figure "Drum Lead Check-1".



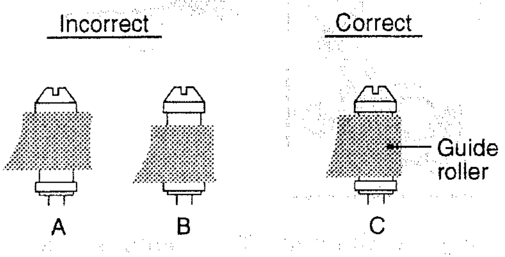
Tape Transport Check



Drum Lead Check-1

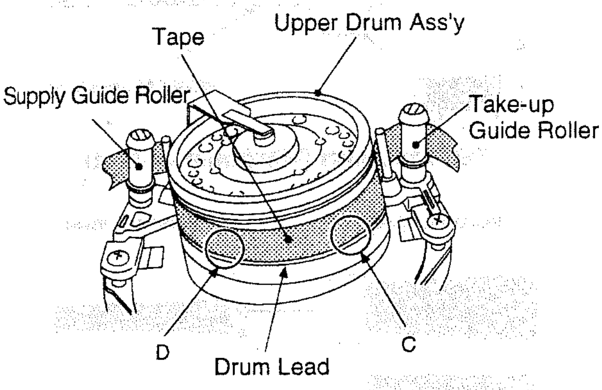
NOTES:

1. If the tape slips upward; sound is produced by contact between the tip of rotating heads and the edge of the tape.
2. If the tape slips downward; the tape curls or wrinkles (or makes noise) at its connection with the lead face of the drum lead.
3. During loading, play, and unloading of the cassette tape, observe the tape at the supply guide roller, and take-up guide roller.
4. Make sure that there are no curls or wrinkles as shown in the figure below.



Guide Roller

5. Observe the tape as it wraps around the drum during PLAY and separates from the drum during STOP.
6. As shown in the figure below, make sure that there is no damage to C and D and that there is no contact noise between the head tips and tape edge.

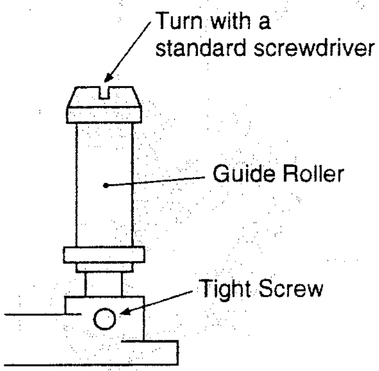


Drum Lead Check-2

7. If a defect is detected during check, perform the follwoing procedure for adjusting Guide Roller height.

4-2. GUIDE ROLLER HEIGHT ADJUSTMENT

1. Slightly loosen the tight-screw of the supply and take-up guide rollers as shown in the figure below.
2. Using an ordinary cassette tape, set to PLAY mode.
3. With a standard screwdriver, slightly turn the supply guide roller (no more than 180° at a time), and adjust so that at the drum input portion, the tape travels smoothly along the drum lead without slipping upwards or downwards.
4. Similarly, adjust the take-up roller for the drum output.



Adjusting Guide Roller Height

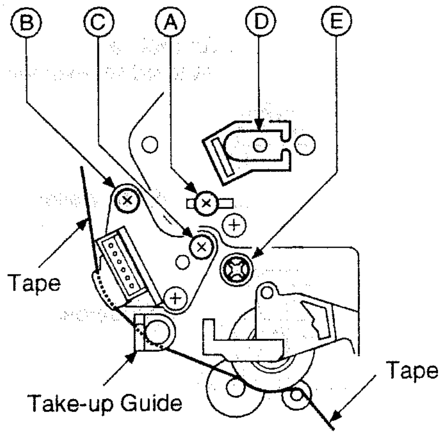
NOTES:

1. Loosen the tight-screw only enough to allow the guide rollers to be rotated. Loosening it anymore than that may rotate the roller inadvertently as a result of tape motion.
2. Rotate the roller carefully to avoid damage to the tape.
3. When the adjustment is completed, tighten the screw and and set by locking up the screw.

4-3. TAPE TRANSPORT CHECK AT THE TAKE-UP GUIDE

In general, no adjustment will be necessary for the take-up guide. However, adjustments or checks will be necessary when replacing the Audio/CTL Head or parts affecting the tape transport system after a long period of operation.

1. Using an ordinary cassette tape, set to PLAY mode.
2. Turn Audio/CTL Head screw © as shown in the figure below and adjust for smooth transport at the take-up guide as shown in Figure "Guide Roller" on page MA-5.



Take Up Guide Roller

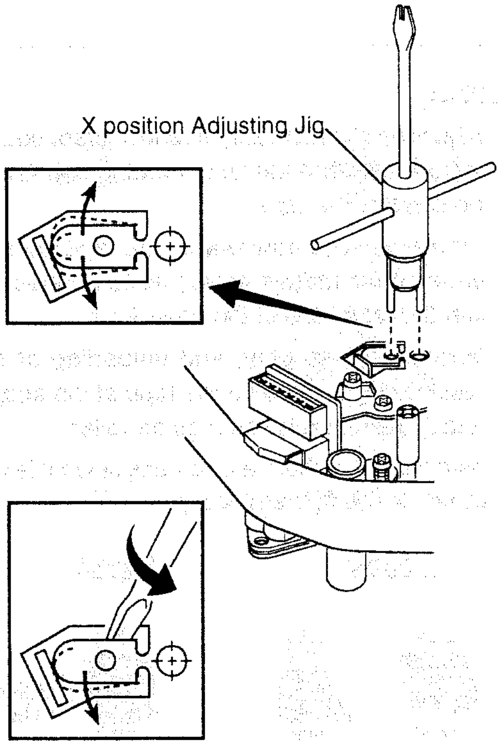
5. INTERCHANGEABILITY ADJUSTMENT

Before using the test tape, make sure that the tape transport is normal using an ordinary cassette tape. Also, make sure that the switching point (Refer to EA) is adjusted. If they are not, do the following checks after adjusting.

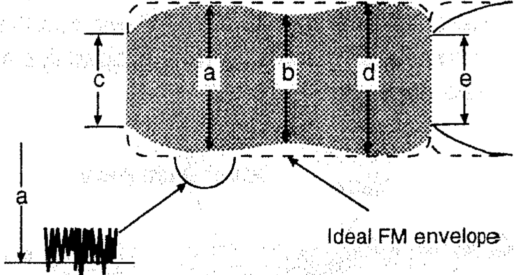
5-1. PRELIMINARY CHECKS

1. FM Envelope Waveform Check

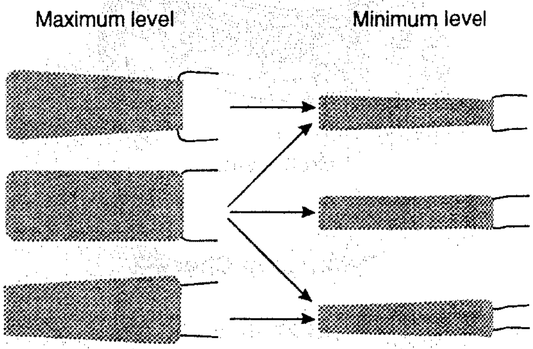
1. Connect the CH-1 oscilloscope to TP of PB ENV and CH-2 to TP of CTL. At this time, trigger the oscilloscope externally with the signal (RF Switching Pulse) from TP of RFS.
2. Play the test tape (Stairstep).
3. Use the Channel ▼/▲ buttons to tune the tracking to center position. Adjust point ④ (X value adjustment point: test point reference P.MA-1) so that the FM envelope output at TP of PB ENV reaches a maximum.



4. Using the Channel ▼/▲ buttons. Perform the following 3 steps (5-7) by moving the TP of CTL waveform in both positive (+) and negative (–) directions in 3 ms increments.
5. Refer to the figure below. Read the level of portion (a) of the waveform. If the waveform is serrated at point (a), adjust the level so that the serrations are as smooth as possible (refer to the second figure).



FM Waveform (Maximum Output)



Normal Waveform Examples

6. As shown in the equation below, read the FM waveform value at point (b) and make sure that:

$$\frac{b}{a} \geqq 0.75 \text{ or } 20 \log \frac{b}{a} \geqq -2.5 \text{ dB}$$

7. Read the values at points (c) and (d) [drum input and output] and make sure that:

$$\frac{c}{a} \geqq 0.75 \text{ and } \frac{d}{a} \geqq 0.75 \text{ or}$$

$$20 \log \frac{c}{a} = -2.5 \text{ dB and}$$

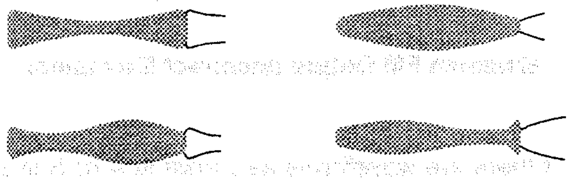
$$20 \log \frac{e}{a} = -2.5 \text{ dB}$$

NOTES:

1. Read the minimum levels for (b), (c), and (d).
2. If above checks yield normal results, proceed to page MA-8 section "ADJUSTMENT".
3. If defects are noted, perform the following FM envelope waveform adjustment.

2. FM ENVELOPE WAVEFORM ADJUSTMENT

1. As in the previous section, observe the FM waveform and press the CHANNEL ▼/▲ buttons. Waveform alterations must be nearly parallel to each other as shown in Figure "Normal Waveform Examples" on page MA-7.
2. If the waveform changes as shown in the figure below, adjustment is necessary.



Abnormal Waveform Example

5-2. ADJUSTMENT

1. Connect the TP of PB ENV to the oscilloscope CH-1. At this time, trigger the oscilloscope externally with the signal (RF Switching Pulse) from TP of RFS.
2. Play the test tape (Stairstep).

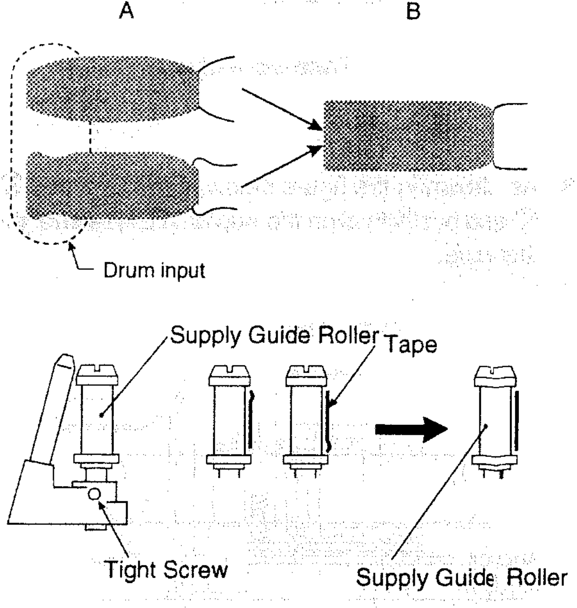
1. DRUM INPUT ADJUSTMENT

1. Observe the FM envelope output wave at the TP of PB ENV with the oscilloscope and press the CHANNEL ▼/▲ buttons in both positive (+) and negative (–) directions.
2. A of the following figure shows incorrect waveforms. With a standard screwdriver, adjust the transport guide roller to flatten the peak of the FM envelope waveform as shown in B.

NOTES:

1. If the guide roller rotates freely, tighten the screw slightly.
2. Be sure to adjust the guide roller only by small increments at a time to avoid damaging the test tape.

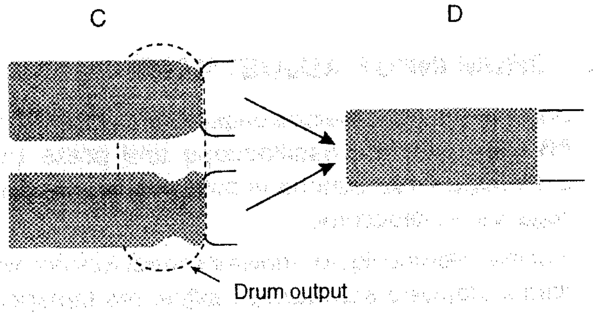
   In addition to observing the waveform, make sure that there is no slipping of the tape or curling at the drum lead.



Drum Input Adjustment

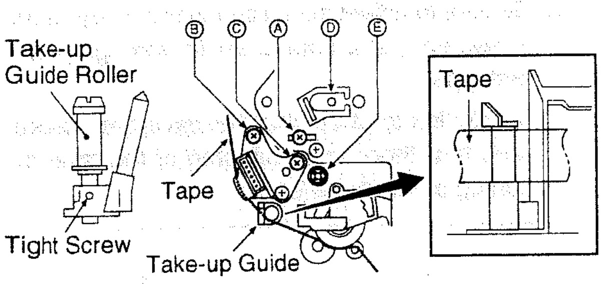
2. DRUM OUTPUT ADJUSTMENT

1. Adjust the take-up guide roller so that the FM envelope output flattens as shown in D of the figure below.


C
D
Drum output

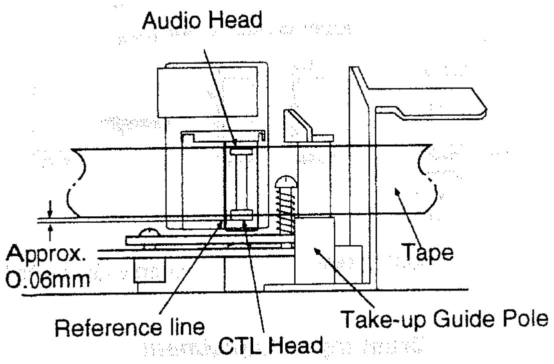
Drum Output Adjustment

2. If the tape separates from the guide or wrinkling occurs at the take-up guide, adjust by turning screw Ⓒ of the Audio/CTL Head as shown in the figure below.


Ⓑ
Ⓒ
Ⓐ
Ⓓ
Ⓔ
Take-up Guide Roller
Tape
Tight Screw
Take-up Guide
Tape

Take-up Guide

3. As shown in the figure below, adjust screws Ⓑ and Ⓒ and nut Ⓐ to align the Audio/CTL Head height with the tape.


Audio Head
Approx. 0.06mm
Tape
Reference line
CTL Head
Take-up Guide Pole

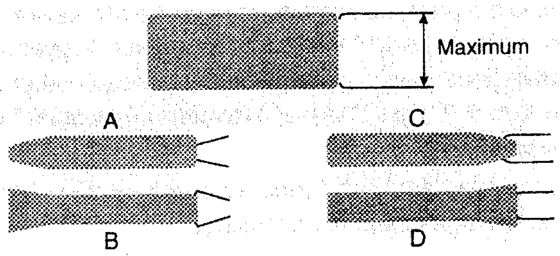
Audio/CTL Head Height

NOTES:

1. Fine adjustments are not required at this time. It is sufficient if the tape is engaged with the guide and that the servo operates properly (control signal picked up).
2. If the tape separates from the take-up guide or wrinkling occurs, screw Ⓒ must have been excessively tightened with respect to screw Ⓐ and screw Ⓑ, which is causing the Audio/CTL Head to incline forward or backward. Use care in adjusting screws Ⓑ and Ⓒ, and screw Ⓐ evenly and observe that wrinkles are not produced at the take-up guide.

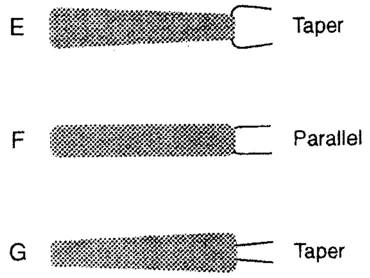
5-3. INTERCHANGEABILITY ADJUSTMENT

1. Observe the FM envelope output waveform at the oscilloscope and press to adjust the CHANNEL▼/▲ buttons in both positive(+) and negative(-) directions.


Maximum
A
B
C
D

Minimum FM Output (Incorrect Examples)

2. If there are waveforms as shown in A or B in the above figure, adjust the supply guide roller height so that the waveform appears as shown by E, F, or G in the figure below. At this time, if the waveform fluctuates, adjust to the point of minimum fluctuation.


E
Taper
F
Parallel
G
Taper

Minimum FM Output (Correct Examples)

3. If the FM waveform appears as shown by C or D in the above figure, adjust the take-up guide roller height to obtain a waveform such as shown in E, F, or G.

   At this time, if the waveform fluctuates, adjust to the point of minimum fluctuation.
4. Vary the tracking control from maximum to minimum FM output.

   Perform fine adjustment of supply and take-up guide rollers so that waveform variation appears as shown in E, F, or G.

5-4. AUDIO/CTL HEAD HEIGHT, AZIMUTH AND SLANT

Refer to 3-2 (MA-4) for details regarding AUDIO/CTL HEAD HEIGHT AND AZIMUTH ADJUSTMENT.

5-5. SETSCREW TIGHTENING

1. Check for maximum FM output waveform, maximum audio output, and be sure that there is no wrinkling on the tape or other transport irregularities. When finished, secure the guide rollers. (This must be performed in STOP mode.)
2. Because the guide rollers are easily moved, use care when securing.
3. After tightening the screws, perform the final interchangeability check.

5-6. FINAL INTERCHANGEABILITY CHECK

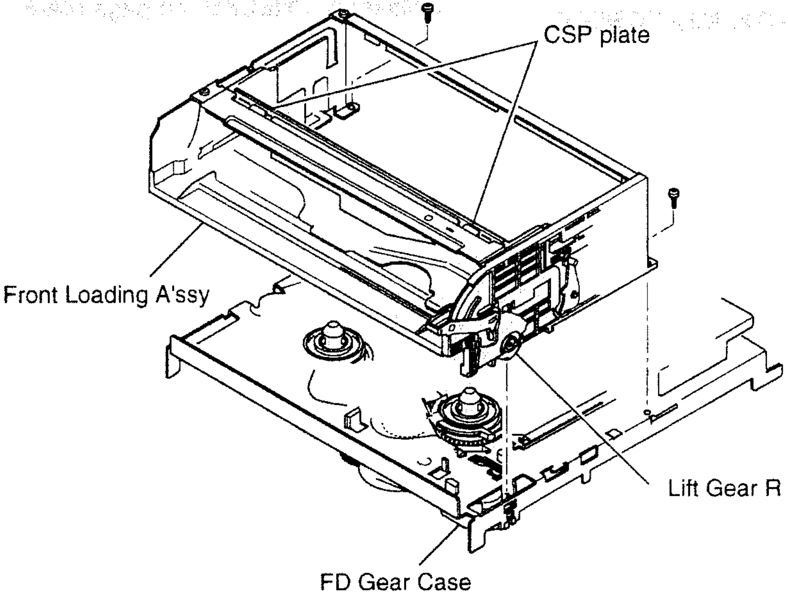
Perform preliminary checks referring to section "PRELIMINARY CHECKS" on page MA-6.

6. FRONT LOADING ASSEMBLY ATTACHMENT

To attach the Front Loading Assembly, follow the procedures below.

1) Twist the loading motor with your finger until it is in EJECT mode.
2) Twist the FD Pinion Gear counterclockwise until it stops. (The FD Face Gear is loose.)
3) Twist the FD face Gear counterclockwise until it stops, then apply gentle pressure in the counterclockwise direction.
4) In the position at step 2) , rotate the FD Pinion Gear clockwise. After about 3 1/2 turns, the FD Pinion Gear should begin to interlock with the FD Relay Gear. Now twist the FD Pinion Gear until it stops. (The assembly should now resemble Fig. 2)
5) Twist the FD Pinion Gear about 1/3 of a turn counterclockwise so that the Lift Gear R attachment position is horizontal making attachment easier, as shown in Fig. 3. Also, the FD Relay Gear and FD Face Gear eye marks should be aligned when the MD is viewed from the back. (Fig. 4)
6) Attach the front assembly.
Insert the first Lift Gear R between the first and second gear of the front assembly. (Fig. 3)

Note: Do not touch the CSP plate of the Front Loading Assembly. (Take care not to distort it.)


CSP plate
Front Loading A'ssy
Lift Gear R
FD Gear Case

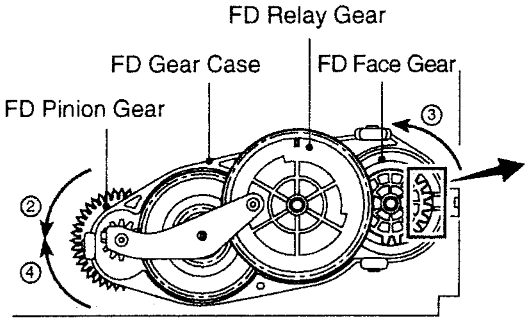

FD Relay Gear
FD Gear Case
FD Face Gear
FD Pinion Gear
③
②
④

Fig. 1 View from above the MD

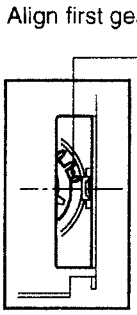

Align first gear on Lift Gear R.

Fig. 2

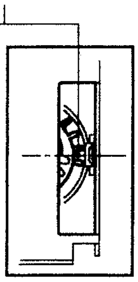


Fig. 3

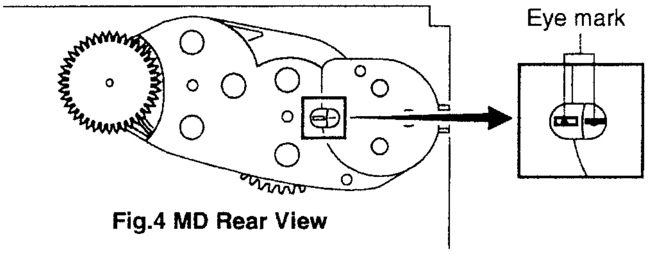
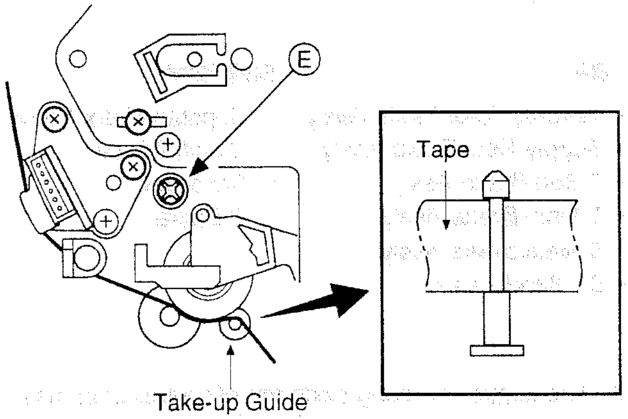


Fig.4 MD Rear View

7. RG POST HEIGHT ADJUSTMENT



1) Use a blank tape and set the VCR to REV mode.
2) Twist screw E and adjust the RG Post height until the tape is aligned with the lower winding plunger.

PERIODIC MAINTENANCE

The following procedures are recommended for maintaining optimum performance and reliability of this video cassette recorder.

CLEANING

For cleaning, use a lint-free cloth or gauze dampened with alcohol.

TAPE TRANSPORT SYSTEM

1. The following components should be cleaned after every 500 hours of use.
   - Impedance Roller
   - Tension Post
   - Transport Slide Post
   - Supply Guide Roller
   - Take-up Slide Post
   - Take-up Guide Roller
   - Video Head & Drum System
   - Drum Ground
   - Drum Motor Shaft
   - Audio/CTL Head
   - Pinch Roller
   - Capstan
   - Reverse Guide Post
   - Full Erase Head
   - Tape Guide
   - F Post

2. Since the above parts come in direct contact with video tape, they tend to collect dust particles. If allowed to accumulate, dust may lead to damage to the video tape and above parts.
3. After cleaning with alcohol, allow the parts to dry thoroughly before using a cassette tape.

NOTE:
- When cleaning the two video heads on the upper drum, do not clean them with a vertical stroke.
- Use only a gentle back and forth motion in the direction of the tape path.

REEL DRIVE SYSTEM

1. The following components should be cleaned after every 1000 hours of use.

TOP	BOTTOM
• Take-up Reel Table Ass'y	• Capstan Motor Pulley
• Supply Reel Table Ass'y	• Clutch Pulley
• T Soft Brake Ass'y	• Drive Belt
• T Main Brake Ass'y	• C Brake
• S Main Brake Ass'y	
• BT Band Ass'y	

2. The above revolving parts are of rubber or come in direct contact with rubber parts. Dust on rubber accumulates and interferes with proper operation.
3. Avoid using excessive alcohol when cleaning rubber parts.

SERVICE SCHEDULE FOR MAIN COMPONENTS

The following table lists the parts which should receive periodic servicing at the recommended intervals.

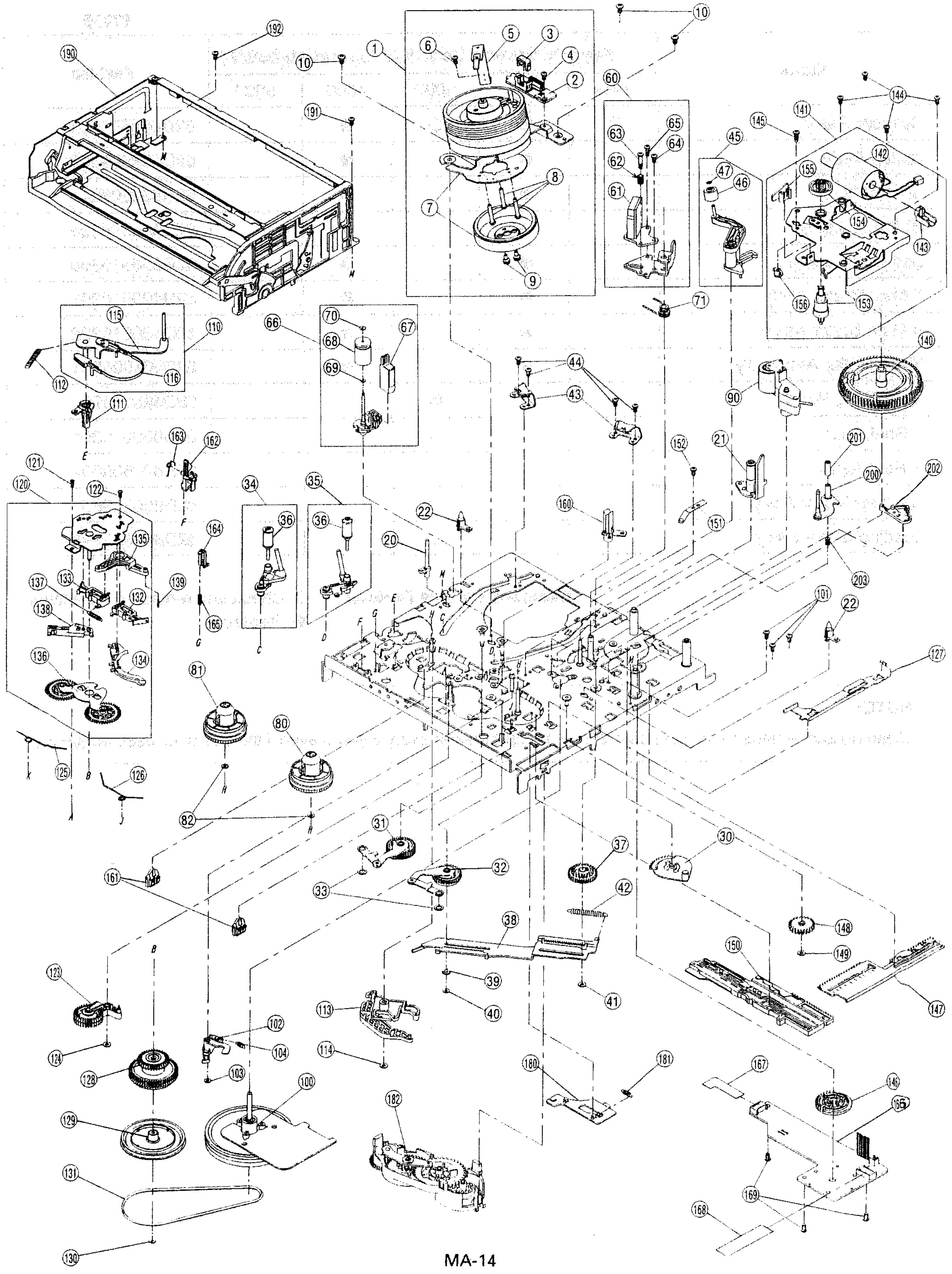
59275

Name	**Periodic Service Schedule (operating hours)**					**Part No.**
	1000	2000	3000	4000	5000	
Cylinder Ass'y	○	●	○	●	○	62D806501601
Clutch Ass'y		●		●		62D806509302
Drive Belt		●		●		62D80650920
BT Band Ass'y		●		●		62D806508303
Soft Brake Ass'y		●		●		62D806510303
T Main Brake Ass'y		●		●		62D806510301
S Main Brake Ass'y		●		●		62D806510302
Pinch Roller Arm Ass'y		●		●		62D806506301
Audio/CTL Head			●			62D62041520
T Reel Ass'y			○			62D806505301
S Reel Ass'y			○			62D806505302
Capstan Motor Ass'y			○			62D60030360
Loading Motor Ass'y			○			62D806511303

Standard Service Periods
○ Check and replace if necessary
● Replace

NOTE:
Cleaning and replacement of the belts should be undertaken every 2 years even if the unit is not used frequently.

EXPLODED VIEW OF THE CASSETTE DECK MECHANISM


10
192
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3
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2
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37
32
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161
42
38
148
149
150
147
123
39
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41
113
102
104
124
114
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100
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169
168
130

CASSETTE DECK MECHANISM 59275

Ref. No.	Part No.	Description
1	62D806501601	CYLINDER ASS'Y
2	62D806501305	V OUT PWB ASS'Y
3	62D68070243	FPC4 CONNECTOR (C)
4	62D9P1226064	TAMS SCREW (TAPPING)S 2.6X6
5	62D806501501	DRUM EARTH ASS'Y
6	62D9P0426041	TAPPING SCREW 2.6X4
7	62D60030361	MOTOR E20XL15
8	62D9P0226151	TAMS SCREW 2.6X15
9	62D806501311	ROTOR SCREW B ASS'Y
10	62D9P0430051	TAPPING SCREW 3.0X5
20	62D806502301	F POST METAL ASS'Y
21	62D806502302	TAPE GUIDE ASS'Y
22	62D80630223	CASSETTE GUIDE BOSS
30	62D806503502	LOADING LEVER KASIME
31	62D806303305	LOADING PLATE L ASS'Y
32	62D806503305	LOADING PLATE R ASS'Y
33	62D9W0650110	HL WASHER(CUT)4.5X7X0.5
34	62D806503303	L BLOCK L ASS'Y
35	62D806503304	L BLOCK R ASS'Y
36	62D80630309	ROLLER POST
37	62D80650304	LOADING GEAR
38	62D80650305	L GEAR PLATE
39	62D80650311	L GEAR PLATE COLLOR
40	62D9W0250100	POLYSLIDER WASHER(C)2.1X5X0.5
41	62D9W0250110	POLYSLIDER WASHER(C)2.6X6X0.5
42	62D80650310	L GEAR PLATE SPRING
43	62D80650301	LD CATCHER
44	62D9P0426051	TAPPING SCREW 2.6X5
45	62D806503306	HEAD CLEANING ASS'Y
46	62D80630329	CLEANING ROLLER ASS'Y
47	62D9W0230050	POLYSLIDER WASHER(C) 1.6X3.8X0.3
48	62D9C1720233	CAMERA SCREW(FLAT TIP)2.0X2.3
60	62D806504302	ACE HEAD BASE ASS'Y
61	62D62041520	ACE HEAD HVMZA1220
62	62D80000604	AZIMUTH SPRING
63	62D80000626	AZIMUTH SPRING SCREW
64	62D9P0930061	SCREW (SHARP-POINTED) 3X6
65	62D9P0126072	SCREW 2.6X7
66	62D806504301	FE HEAD BASE ASS'Y
67	62D62091504	VTR1X2ERS11107
68	62D806304306	IMPEDANCE ROLLER ASS'Y
69	62D9W0230050	POLYSLIDER WASHER(C) 1.6X3.8X0.3
70	62D9W0630040	HL WASHER(CUT) 1.55X4.5X0.3
71	62D80650402	HEAD BASE SPRING
80	62D806505301	T REEL ASS'Y
81	62D806505302	S REEL ASS'Y

CASSETTE DECK MECHANISM 59275

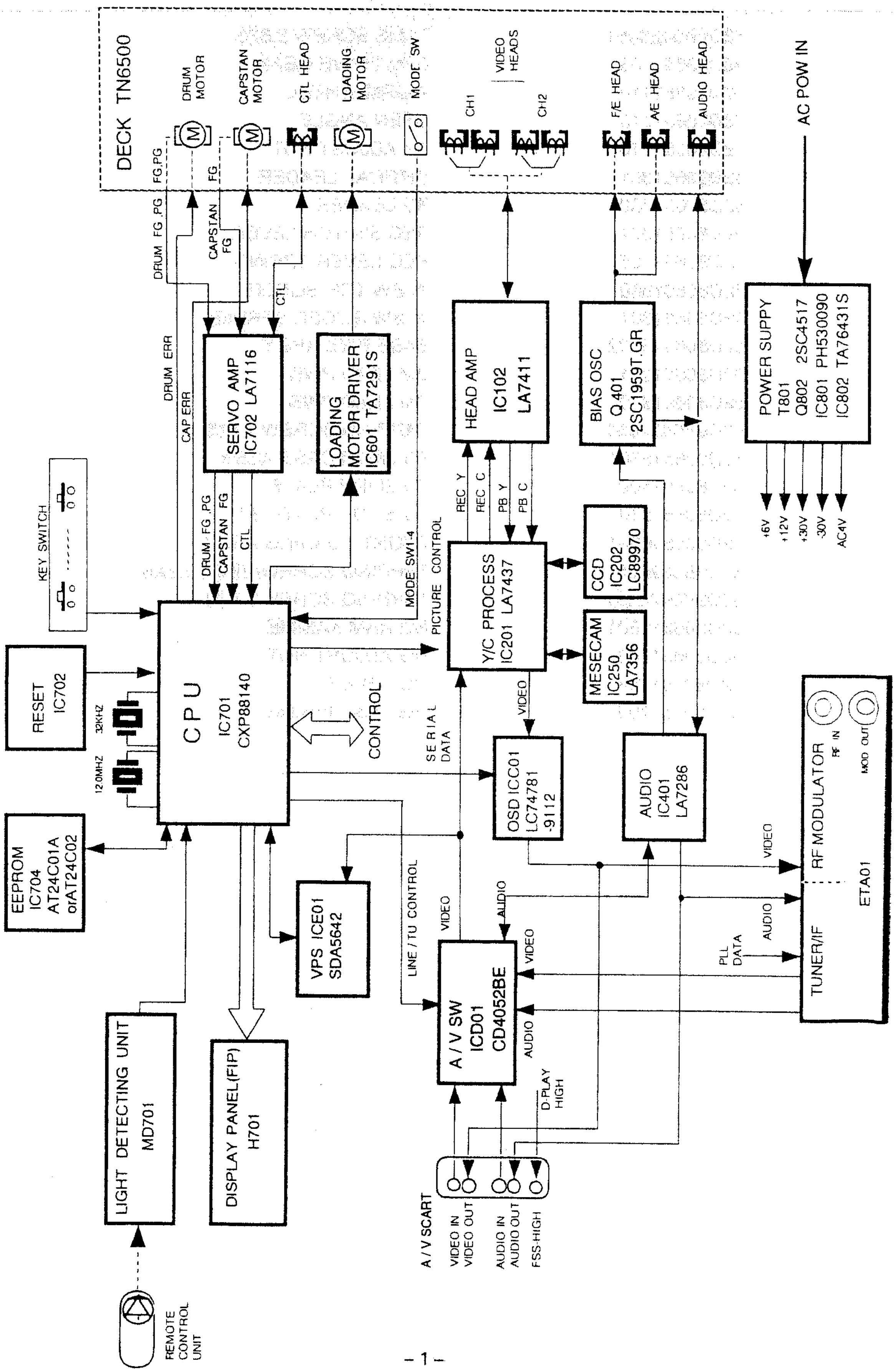
Ref. No.	Part No.	Description
82	62D9W0330110	NYLON WASHER 2.5X5X0.3
90	62D806506301	PINCH ROLLER ARM ASS'Y
100	62D60030360	CAPSTAN MOTOR (F2QTB10)
101	62D9P0726061	TAPPING SCREW P 2.6X6
102	62D806507301	C BRAKE ASS'Y
103	62D9W0250100	POLYSLIDER WASHER(C)2.1X5X0.5
104	62D80650702	C BRAKE SPRING
110	62D806508301	TENSION ARM ASS'Y
111	62D80630804	BT ARM METAL
112	62D80650802	BT SPRING
113	62D80650806	BT LEVER
114	62D9W0250110	POLYSLIDER WASHER(C)2.6X6X0.5
115	62D806508302	TENSION ARM SEMI ASS'Y
116	62D806508303	BT BAND ASS'Y
120	62D806509303	SUB PLATE ASS'Y
121	62D9C0426503	CAMERA SCREW(TAPPING)S 2.6X5
122	62D9P0420041	TAPPING SCREW 2.0X4
123	62D806509304	RF CLUTCH ASS'Y
124	62D9W0250110	POLYSLIDER WASHER(C)2.6X6X0.5
125	62D80651007	TS BRAKE SPRING
126	62D80651009	SS BRAKE SPRING
127	62D80651010	TS BRAKE LEVER
128	62D806509302	CLUTCH ASS'Y
129	62D806509301	CLUTCH PULLY ASS'Y
130	62D9W0230060	POLYSLIDER WASHER(C) 2.1X5X0.3
131	62D80650920	DRIVE BELT
132	62D806510301	T MAIN BRAKE ASS'Y
133	62D806510302	S MAIN BRAKE ASS'Y
134	62D806510303	T SOFT BRAKE ASS'Y
135	62D80651113	REVERSE LEVER
136	62D806509307	GEAR PLATE ASS'Y
137	62D80651005	MAIN BRAKE SPRING
138	62D80651008	S SOFT BRAKE ARM
139	62D80651114	REVERSE LEVER PIN
140	62D806511302	CAM GEAR ASS'Y
141	62D806511301	CAM PLATE ASS'Y
142	62D806511303	LOADING MOTOR ASS'Y
143	62D80651111	MOTOR HOLDER
144	62D9P0226051	TAMS SCREW 2.6X5
145	62D9F2226081	ADJUST SCREW 2.6X8
146	62D80651104	M GEAR
147	62D806511305	M GEAR PLATE ASS'Y
148	62D80651107	M RELAY GEAR
149	62D9W0630100	HLW(C) 2.6X6X0.3
150	62D80651108	M SLIDE PLATE
151	62D80651117	R LEVER SPRING PLATE

CASSETTE DECK MECHANISM 59275

Ref. No.	Part No.	Description
152	62D9P0426051	TAMS SCREW 2.6X5
153	62D80651103	CAM DRIVE GEAR
154	62D80651110	WORM WHEEL
155	62D80651115	OPEN ANGLE
156	62D80651116	AH ADJUST NUT
160	62D80651301	OPTICAL LEADER
161	62D806513303	RS LEADER
162	62D80651304	REC SWITCH LEVER
163	62D80651305	REC LEVER SPRING
164	62D80651306	IN SWITCH SLIDER
165	62D80651307	IN SW SLIDER SPRING
166	62D806513302	BASE PWB ASS'Y
167	62D80651311	DM LEAD PWB
168	62D80651312	CM LEAD PWB
169	62D9P0426051	TAPPING SCREW 2.6X5
180	62D806515301	FD GEAR CASE ASS'Y
181	62D80651509	FD SLIDE PLATE
182	62D80651510	FD SLIDE PLATE SP
190	62D806516301	FRONT LOADING ASS'Y
191	62D9B0326051	TAPPING SCREW(BIND) 2.6X5
192	62D9P0426051	TAPPING SCREW 2.6X5
200	62D806517501	RG ARM KASIME
201	62D80651703	RG ADJUST NUT
202	62D80651704	RG LEVER
203	62D80651705	RG ARM SPRING

DIAGRAM

1. BLOCK DIAGRAM


DECK TN6500
DRUM MOTOR
CAPSTAN MOTOR
CTL HEAD
LOADING MOTOR
MODE SW
VIDEO HEADS
CH1
CH2
F/E HEAD
A/E HEAD
AUDIO HEAD
AC POW IN
FG.PG
FG
DRUM FG.PG
CAPSTAN FG
CTL
DRUM ERR
CAP ERR
SERVO AMP IC702 LA7116
LOADING MOTOR DRIVER IC601 TA7291S
HEAD AMP IC102 LA7411
BIAS OSC Q401 2SC1959T.GR
POWER SUPPY T801 Q802 2SC4517 IC801 PH530090 IC802 TA76431S
+6V
+12V
+30V
-30V
AC4V
KEY SWITCH
DRUM FG.PG
CAPSTAN FG
CTL
MODE SW1-4
PICTURE CONTROL
REC Y
REC C
PB Y
PB C
Y/C PROCESS IC201 LA7437
CCD IC202 LC89970
MESECAM IC250 LA7356
RESET IC702
32KHZ
12.0MHZ
C P U IC701 CXP88140
CONTROL
SERIAL DATA
VIDEO
OSD ICC01 LC74781-9112
AUDIO IC401 LA7286
RF MODULATOR
RF IN
MOD OUT
ETA01
TUNER/IF
VIDEO
AUDIO
PLL DATA
EEPROM IC704 AT24C01A orAT24C02
VPS ICE01 SDA5642
LINE / TU CONTROL
VIDEO
AUDIO
VIDEO
AUDIO
A / V SW ICD01 CD4052BE
D-PLAY HIGH
LIGHT DETECTING UNIT MD701
DISPLAY PANEL(FIP) H701
A / V SCART
VIDEO IN
VIDEO OUT
AUDIO IN
AUDIO OUT
FSS-HIGH
REMOTE CONTROL UNIT

2. TERMINOLOGY REFERENCE

The following terms have been changed as a result of the use of a new CAD system.

Description	Ref. No.	CAD Code	
♦ **IC**	IC101	LA3373, MT	No Connection Description (LA3373) **Circuit Ref. Number** Head Name
♦ **Transistor**	Q101	2SC2785T. E. F	Rank No Connection Description (2SC2785) **Circuit Ref. Number** Head Name
♦ **Diode**	D101	1S2835T	No Connection Description (1S2835) **Circuit Ref. Number** Head Name
♦ **Resistor**	R101	RC102F	Tolerance F: ±1 % G: ±2 % J: ±5 % (No Mark) K: ±10% M: ±20% H: No Connection Resistance (10 x 10^2 = 1000 ohms) Carbon Resistor 1/6W **Circuit Ref. Number** Head Name
	R102	RA1R1	Resistance (1.1 ohm) Decimal Point Mark Chip Resistor 2125 Type 1/10W
♦ **Capacitor** (Chip)	C101	CA200C	Temperature Characteristic C: CH, CJ, CK U: UJ S: SL B: B D: D **Capacitance (20 x 10^0 = 20pF)** Chip Capacitor 2125 Type **Circuit Ref. Number** Head Name
♦ **Capacitor** (Ceramic)	C101	SL1R5H or S or Z	No Connection **Capacitance (1.5pF)** Decimal Point Mark Characteristic (Ceramic SL)
♦ **Capacitor** (Electrolytic)	C101	ES1/50H or F or Z	No Connection Voltage Proof (50V) **Capacitance (1μF)** Electrolytic SSM Type
♦ **Hybrid IC**	IC102	HIC* * * * * *	Code No. (3 ~ 8 Column → 11* * * * * *0)
♦ **CR Component**	CR101	CR* * * * * *	Code No. (3 ~ 8 Column → 11* * * * * *0)
♦ **In-Line Block**	IB101	IB* * * * * *	Code No. (3 ~ 8 Column → 11* * * * * *0)
♦ **Surge Absorber**	D102	Z* * * * * *	Code No. (3 ~ 8 Column → 13* * * * * *0)
♦ **LED**	LD101	LED* * * * * *	Code No. (3 ~ 8 Column → 14* * * * * *0)
♦ **LCD**	H101	LCD* * * * * *	Code No. (3 ~ 8 Column → 14* * * * * *0)
♦ **FIP**	H102	FIP* * * * * *	Code No. (3 ~ 8 Column → 14* * * * * *0)
♦ **Pilot Lamp**	PL101	PL* * * * * *	Code No. (3 ~ 8 Column → 14* * * * * *0)
♦ **Neon Bulb**	NE101	NE* * * * * *	Code No. (3 ~ 8 Column → 14* * * * * *0)
♦ **Trimmer Cap.**	C102	CT* * * * *	Code No. (5 ~ 9 Column → 1591* * * * *)
♦ **CFC Assy**	C103	CFC* * * * *	Code No. (5 ~ 9 Column → 1501* * * * *)
♦ **Coil**	L101	L* * * * * *	Code No. (3 ~ 8 Column → 17* * * * * *0)
♦ **Filter**	F101	F* * * * * *	Code No. (3 ~ 8 Column → 17* * * * * *0)

Description	Type	Capacitance Limit	No Marked Tolerance
Chip	CK, CJ, CH, UJ	1PF ~ 5PF	C (±0.25PF)
	CH, UJ	6PF ~ 10PF	D (±0.5PF)
	CH, SL	12PF ~ 470PF	J (±5%)
	SL, B	680PF ~ 0.022µF	K (±10%)
	D	0.033µF ~ 0.1µF	M (±20%)
Ceramic		1PF ~ 5PF	C
		6PF ~ 10PF	D
	General	12PF ~ 270PF	J
	B	100PF ~ 680PF	K
Semi-Conductor	SR	0.001µF ~ 0.068µF	K
	BC	0.1µF ~ 0.2µF	Z (−20% ~ +80%)
Mylar (M)		0.001µF ~ 0.1µF	J
TF		0.1µF ~ 0.47µF	J
PS, NPS		470PF ~ 1000PF	G (±2%), J
ALSICON (AS)		0.1µF ~ 0.22µF	M
Tantalum (TA)		0.15µF ~ 10µF	M
Electrolytic	General	0.1µF ~ 220µF	M

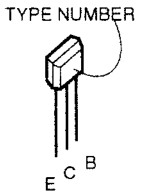
Head	Description	Head Name	Description
ET	Electrolytic Tuner	NE	Neon Bulb
MT	Manual Tuner	PL	Pilot Lamp
PT	Push Button Tuner	C*	Capacitor
K	Relay	R* *	Resistor
MC	Microphone	L	Transformer
SP	Speaker	L	Coil, Inductor
IC	IC, Hybrid IC	F	Ceramic Filter, Crystal
IB	In-Line Block	W	Printed Circuit Board
CR	CR Component	BL	Block PC Ass'y
Q	Transistor	P	Connector Post
D	Diode, Surge Absorber	TP	Check Pin
LD	LED	AJ	Antenna Jack
H	LCD	SW	Switch
H	FIP	VR	Volume

CAD Code	*Capacitor
CA* * * *	Chip Capacitor 2125 Type
CB* * * *	Chip Capacitor 3216 Type
SL* * *	Ceramic Capacitor SL Type
B* * *	Ceramic Capacitor B Type
F* * *	Ceramic Capacitor F Type
CH* * *	Ceramic Capacitor CH Type
LH* * *	Ceramic Capacitor LH Type
PH* * *	Ceramic Capacitor PH Type
RH* * *	Ceramic Capacitor RH Type
SH* * *	Ceramic Capacitor SH Type
TH* * *	Ceramic Capacitor TH Type
UJ* * *	Ceramic Capacitor UJ Type
SR* * *	Semi-Conductor Cap. SR Type
BC* * *	Semi-Conductor Cap. BC Type
M* * *	Mylar Capacitor
TF* * *	TF Capacitor
NP* * *	NPS Capacitor
AS* * / * *	ALSICON Capacitor
TA* * / * *	Tantalum Capacitor
ES* * / * *	Electrolytic Cap. SSM Type
ESL* * / * *	Electrolytic Cap. SSM-L Type
ESH* * / * *	Electrolytic Cap. SSM-H Type
ESB* * / * *	Electrolytic Cap. Bi-Polar
EG* * / * *	Electrolytic Cap. GSM Type
EE* * * *	Electrolytic Cap. SEM Type

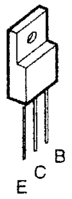
CAD Code	*Capacitor
EA* */* *	Electrolytic Cap. Aibis Type
EL* */* *	Electrolytic Cap. LSM Type
EH* */* *	Electrolytic Cap. HPW Type
CT* * * * *	Trimmer Capacitor

CAD Code	* *Resistor
RA* * *	Chip Resistor 2125 Type
RB* * *	Chip Resistor 3216 Type
RC* * *	Carbon Resistor 1/6W S Type
RD* * *	Carbon Resistor 1/4W U Type
RU* * *	Carbon Resistor 1/6W U Type
RF* * *	Carbon Resistor 1/2W S Type
RK* * *F	Metal Film Resistor 1/4W S ±1%
RL* * *F	Metal Film Resistor 1/6W S ±1%
RP* * *	Metal Oxide Resistor 1W S Type
RQ* * *	Metal Oxide Resistor 2W S Type
RM* * *	Cement Resistor 5W S Type
RV* * *	Variable Resistor Vertical Type 6ϕ
RV* * *A	Variable Resistor Vertical Metal 6ϕ
RV* * *B	Variable Resistor Down Type 6ϕ
RV* * *C	Variable Resistor Vertical 6ϕ 4 pin
PR* * *	Printed Resistor (on PC Board)

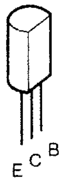
4. IC, TRANSISTOR LEAD IDENTIFICATION


TYPE NUMBER
E
C
B

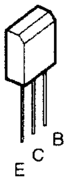
2SC2458T-Y,GR
RN1203.TPE4
DTA124EST
2SA1048-GR



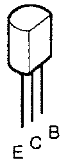
2SC4517



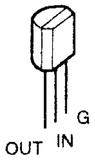
TA76431S



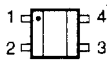
2SD1581



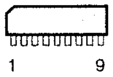
2SD2132T-V,W
2SC1959T-GR



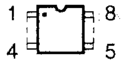
PST9129T



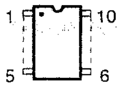
PH530090



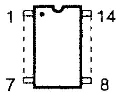
TA7291S



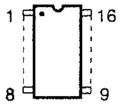
AT24C01A
AT24C02



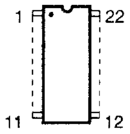
LA7356



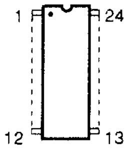
SDA5642



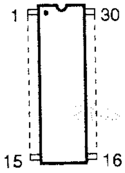
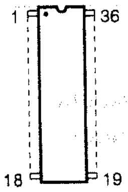
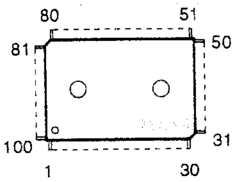
CD4052BE



LC89970

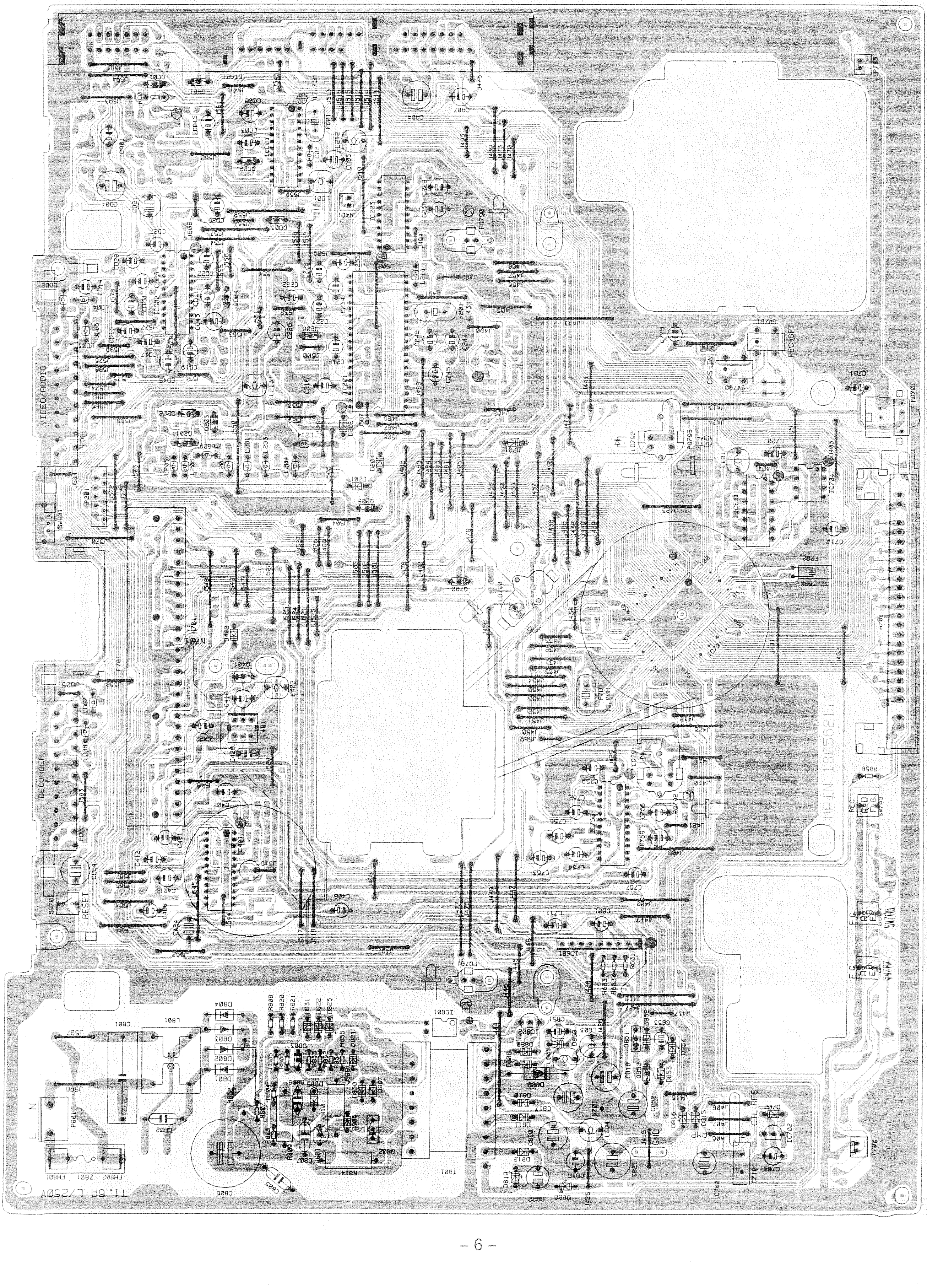


LA7411
LA7156
LA7116
LA7286
LC74781.9112

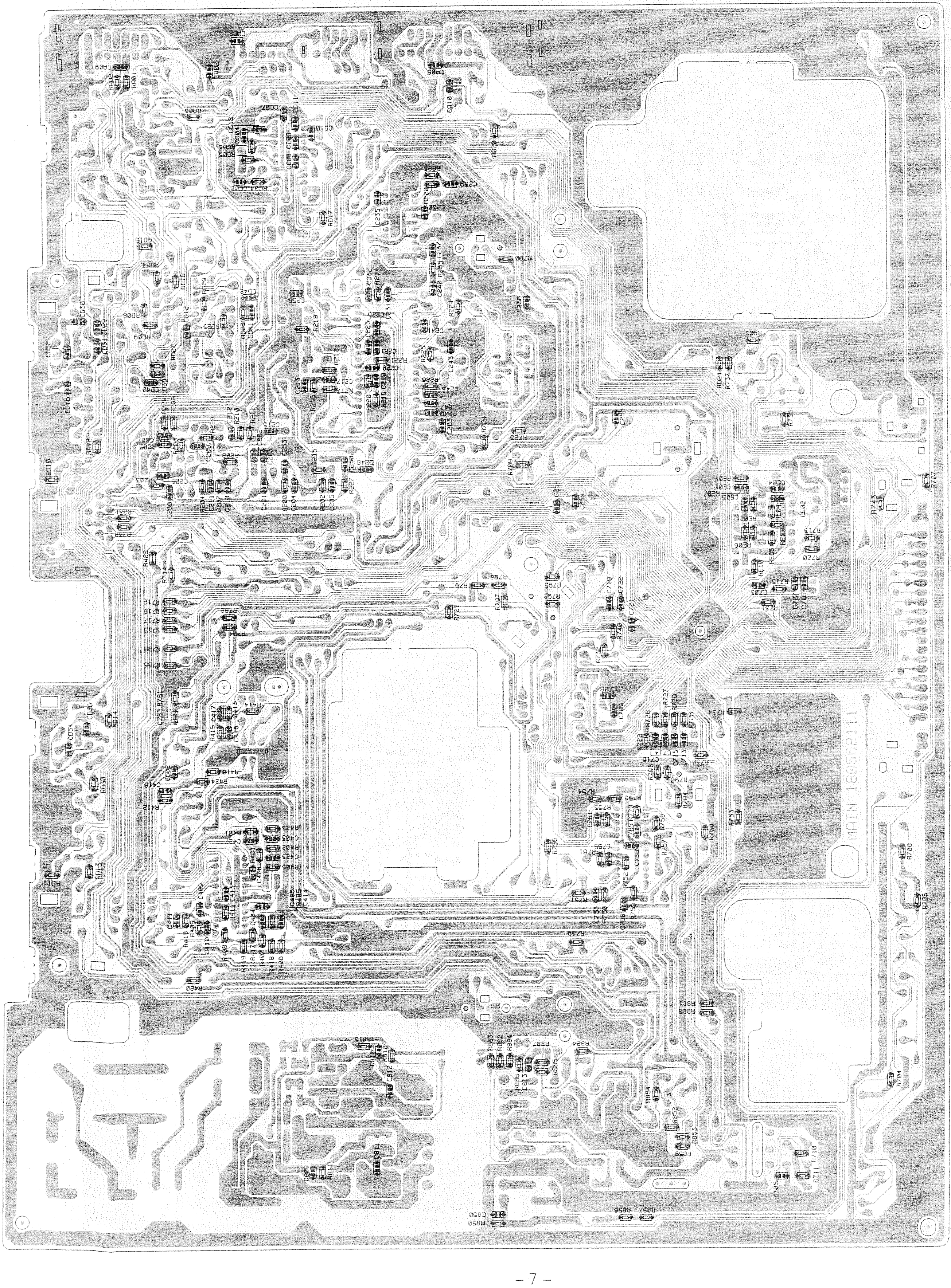
	LA7416
	LA7437
 80 51 81 50 100 31 1 30	CXP88140-XXXQ

5. ELECTRICAL PARTS LOCATION (VCR 329)

PC BOARD ASS'Y (MAIN)

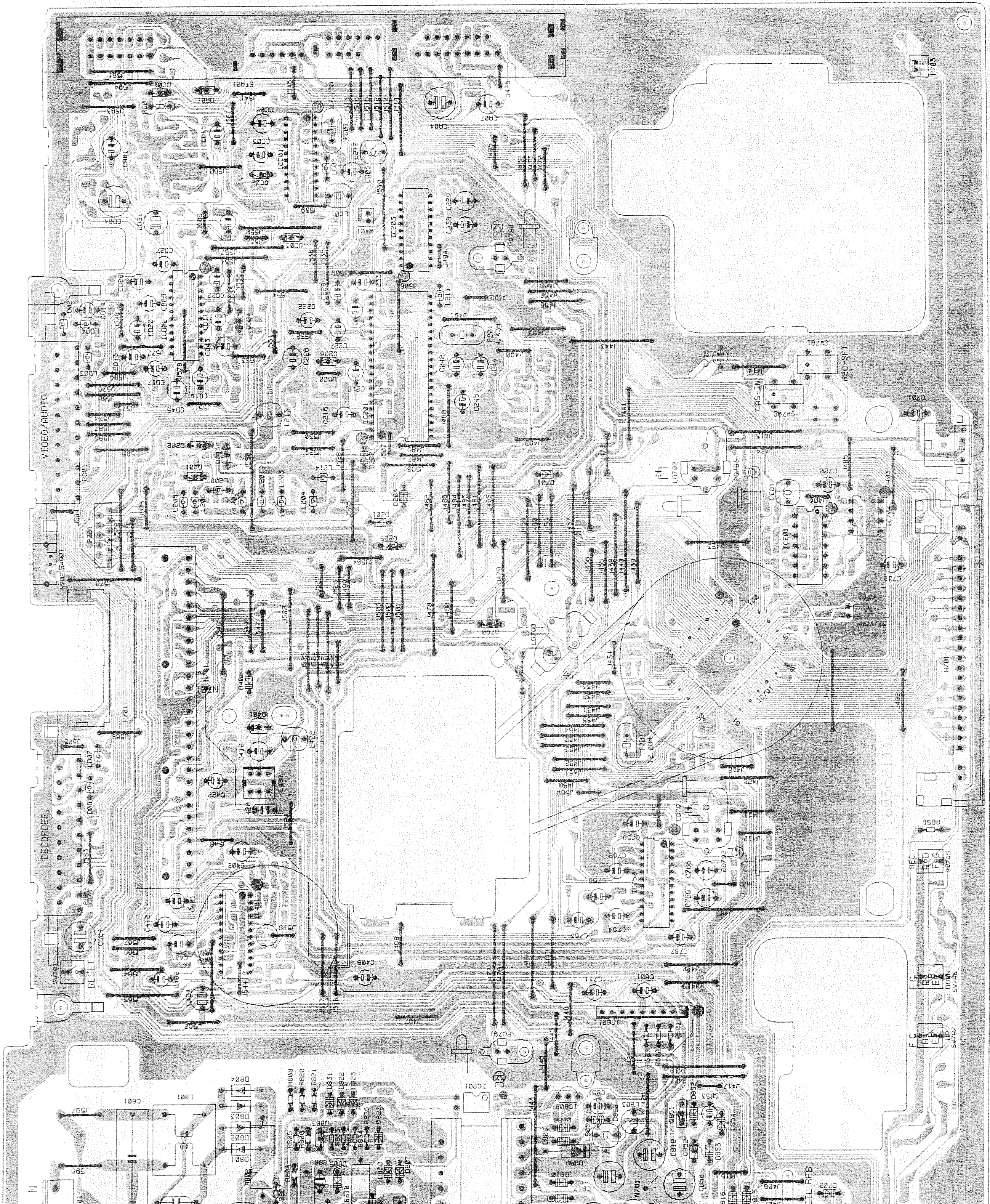

VIDEO/AUDIO
DECODER
RESET
REC-SFT
CAS IN
T1.6A L/250V
MAIN 1805621

PC BOARD ASS'Y (MAIN)

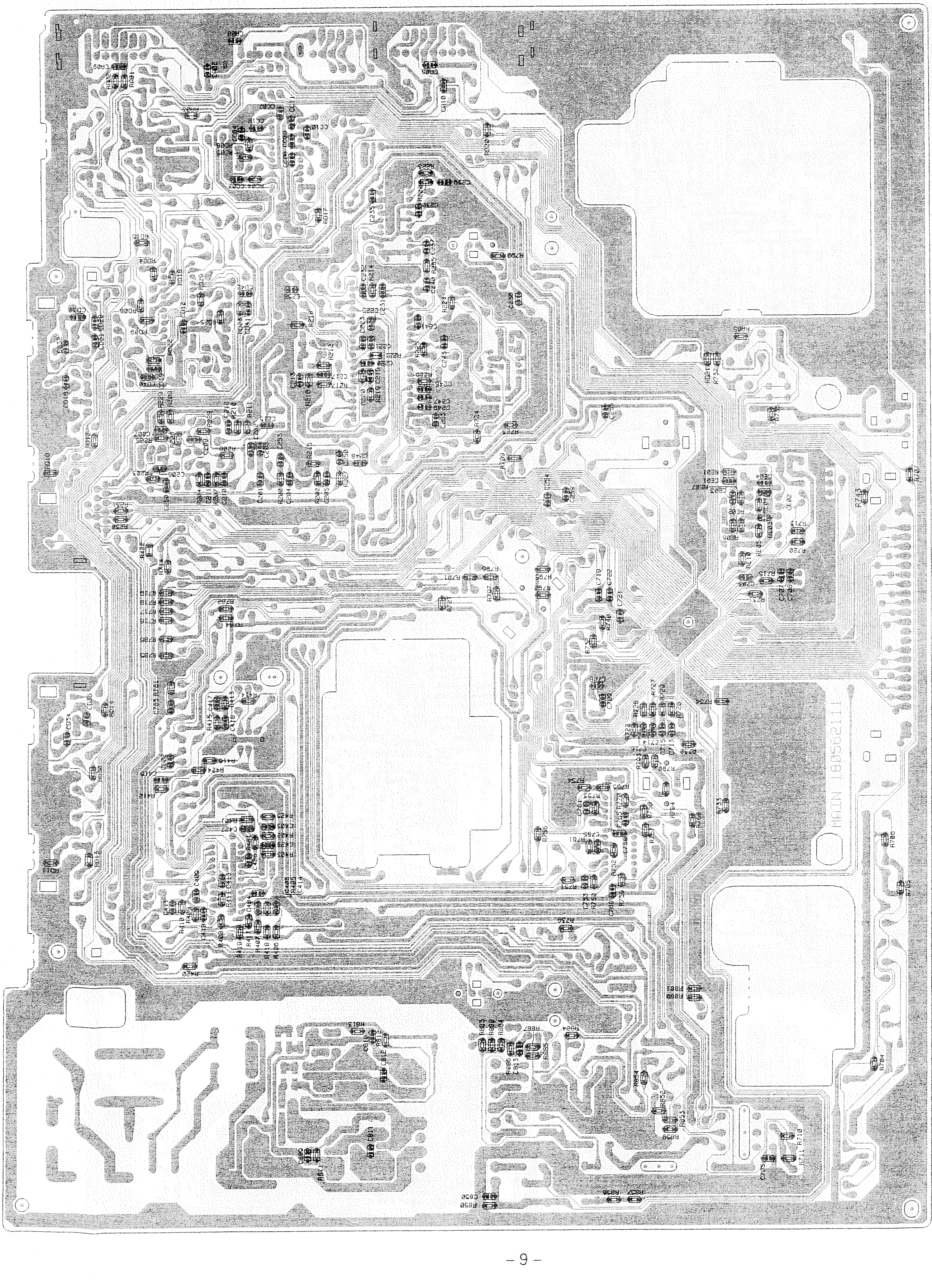

MAIN 180562111

ELECTRICAL PARTS LOCATION (VCR 330/VCR 332)

PC BOARD ASS'Y (MAIN)

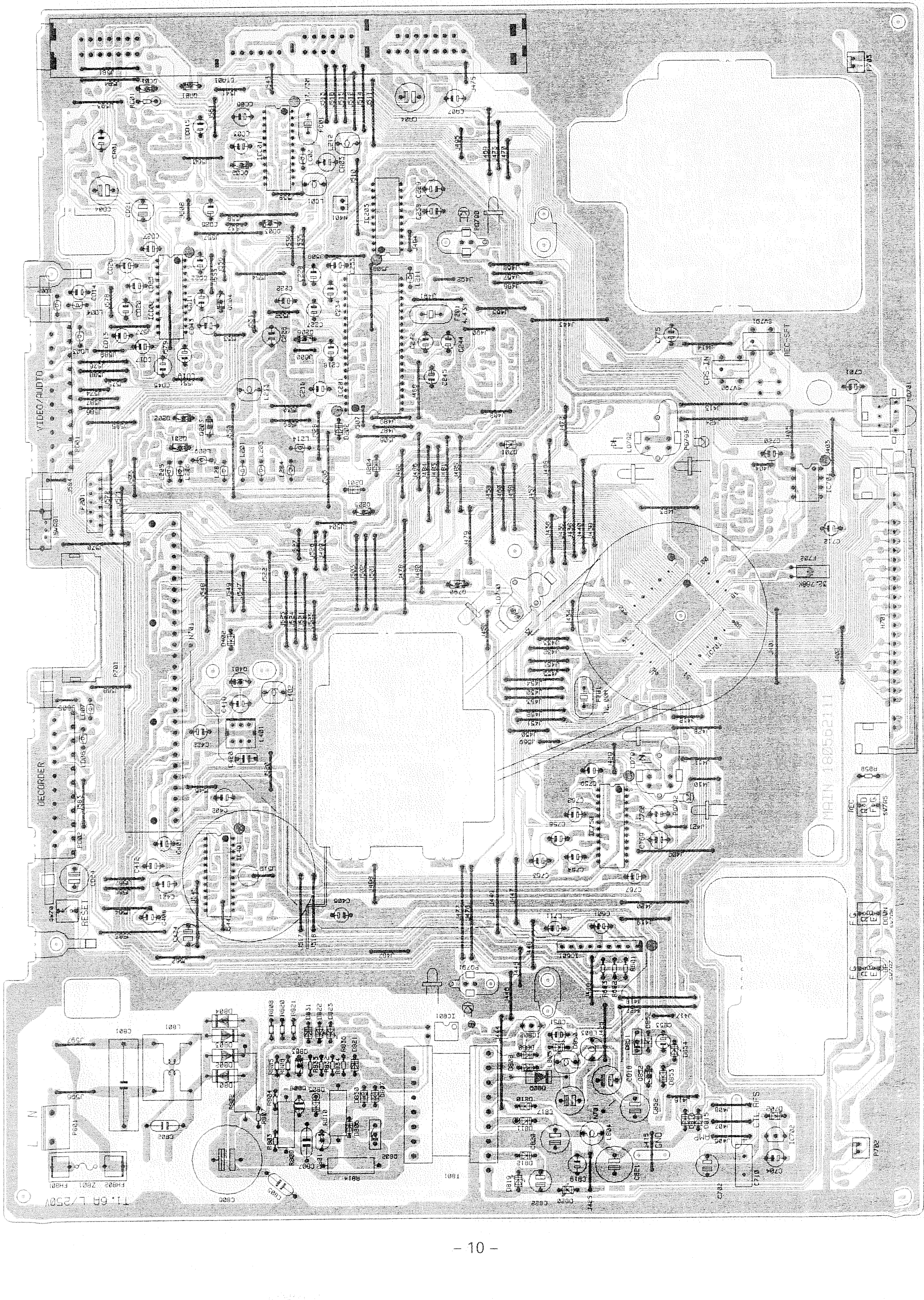

VIDEO/AUDIO
DECODER
RESET
REC-SFT
CAS-SW
MAIN
L
N
GND

PC BOARD ASS'Y (MAIN)

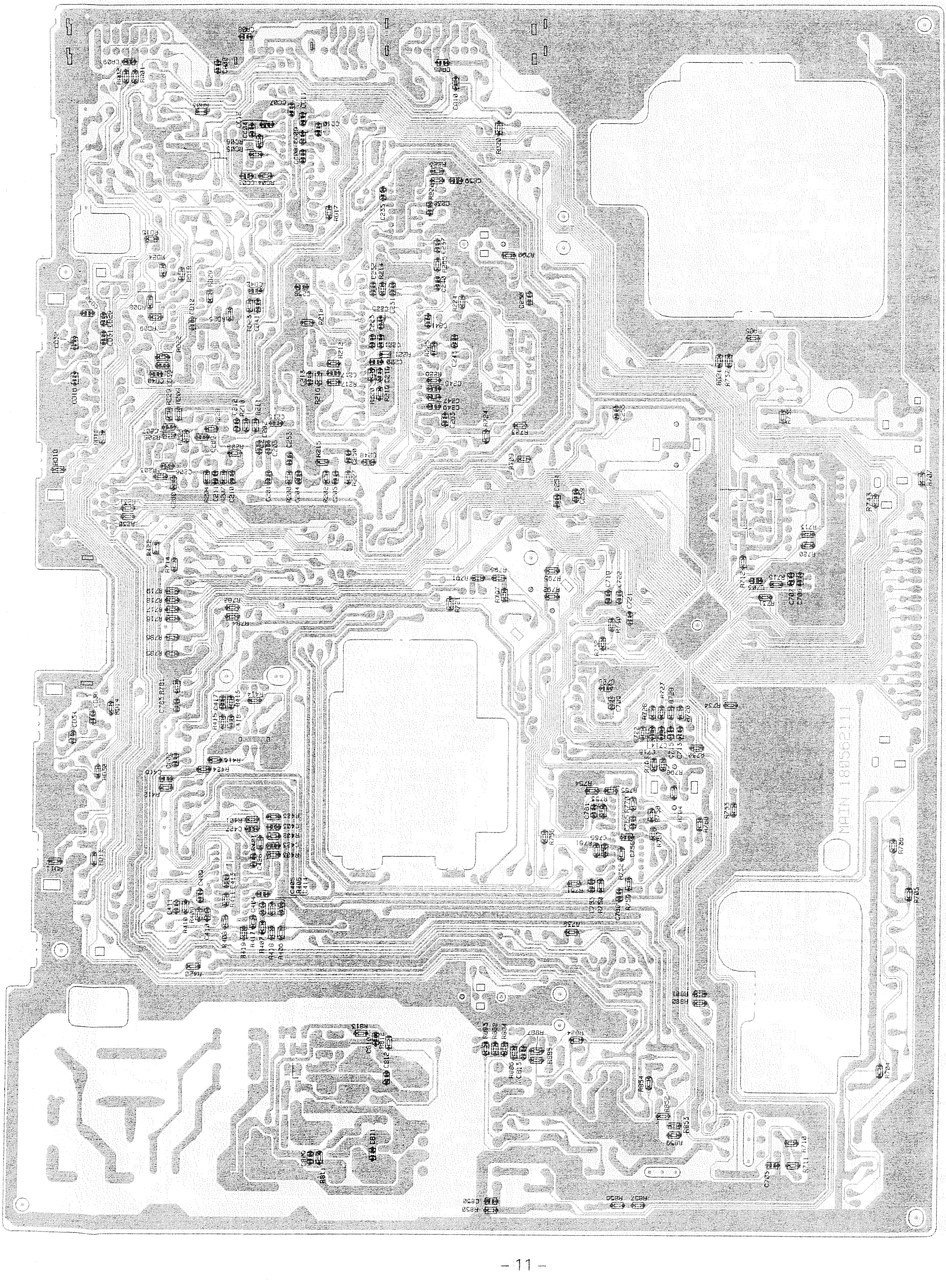


ELECTRICAL PARTS LOCATION (VCR 331)

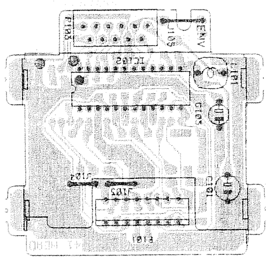
PC BOARD ASS'Y (MAIN)

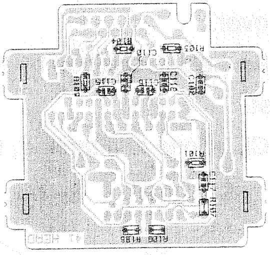

VIDEO/AUDIO
DECORDER
RESET
REC-SFT
CAS-IN
MAIN 180562111
AMP
CTL AFS
DOWN
T1.6A L/250V

PC BOARD ASS'Y (MAIN)

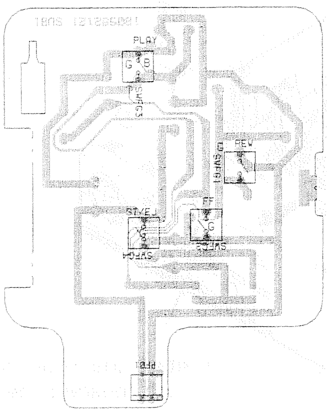


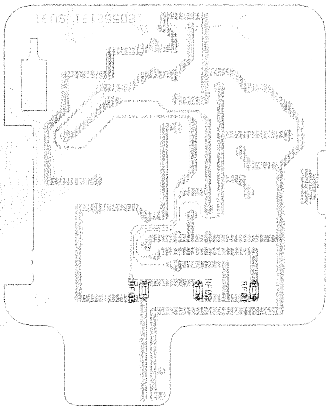
PC BOARD ASS'Y (HEAD)


J105
ENV
IC102
IC101
J104
IC103

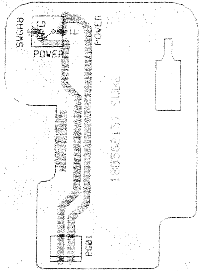


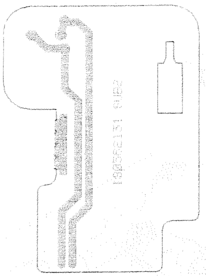
PC BOARD ASS'Y (SUB1)





PC BOARD ASS'Y (SUB2)


POWER
POWER
SUB2



6. REMOVAL OF THE DECK MECHANISM

6-1. REMOVING THE TOP COVER AND FP ASSY

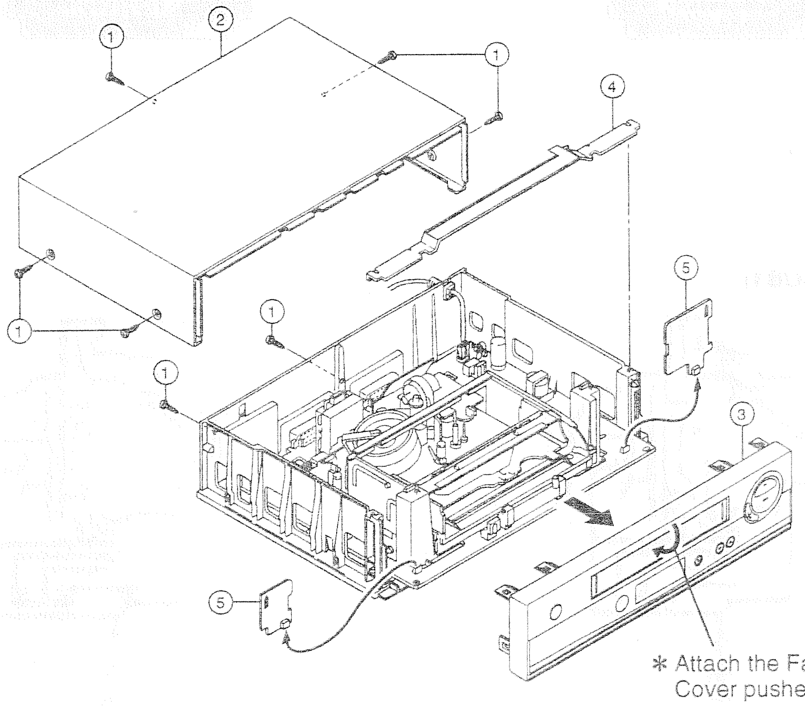
① Remove the seven screws.

② Remove the Top Cover.

③ Remove the FP Assy, held in position by the eight prongs, the direction of arrow.

④ Remove the Bracket.

⑤ Remove the Sub PCB, if one is attached, from the Main PCB.



∗ Attach the Face Plate with the Dust Cover pushed open.

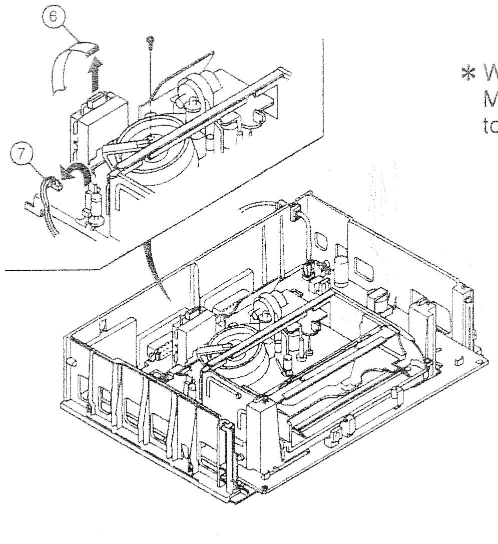
6-2. REMOVING THE DECK MECHANISM

⑥ Disconnect the Flexible Wire 9P (N201) from the Head Amp Unit.

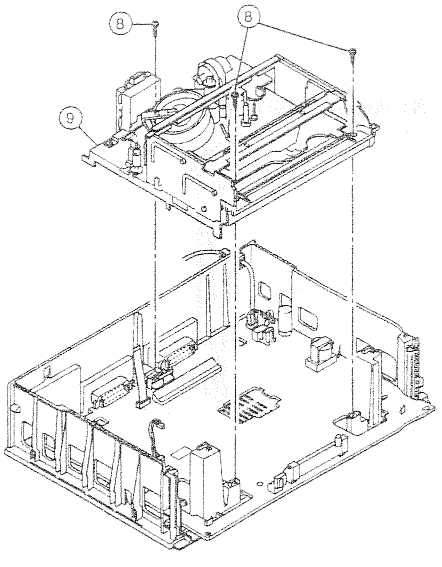
⑦ Disconnect the Connector (N401) from the Deck Mechanism.

⑧ Remove three screws.

⑨ Remove the Deck Mechanism.



∗ When handling the Deck Mechanism, take care not to touch the cylinder head.



* The VCR 329 model uses a 1 Scart type jack. Therefore, there is no hole on the left side of the rear panel. (When viewed from the front, there is no hole on the right side of the rear panel.)

9. ELECTRICAL PARTS LIST (VCR 329)

CABINET & CHASSIS (VCR 329)

Ref. No.	Part No.	Description
1	59275	DECK TN6500-104M
2	21046150	COVER (BOTTOM) PAL
3	21046171	COVER (TOP) PAL
4	21175770	BKT (BAR)
5	21234720	S.PLATE (AUD)
6	21291180	PLATE SPRING
7	22127761	REAR PANEL (RGB-1)
8	22151730	SPACER DECK-S
9	22151740	SPACER DECK-L
10	22151750	SPACER (DECK-2)
11	22327190	FACE PLATE ASS'Y (22327190)
12	22703591	CHASSIS
13	25350970	CUSHION
14	28004430	INSULATOR
15	2952305A	DPBS-3X5SSA
16	2953310A	DPBB-3X10SSA
17	2953310C	DPBB-3X10SSC
18	26021580	N801 POWER CORD
19	194001090	N201 FLEXIBLE WIRE 9P
20	1963104E0	N401 QS-CONN-8283-02 ##
*21	35P3710/36E8110	MAIN CIRCUIT BOARD (35P3710/36E8110)
*22	35N7140/36E2940	HEAD CIRCUIT BOARD (35N7140/36E2940)
*23	35N5420/36E8120	SUB1 CIRCUIT BOARD (35N5420/36E8120)
*24	35N5430/36E3030	SUB2 CIRCUIT BOARD (35N5430/36E3030)

For details of item marked *, refer to pages PL-5 – PL-13, and PL-32.

ACCESSORIES (VCR 329)

Ref. No.	Part No.	Description
1	1080637H0	REMOTE CONTROLLER,637
2	28527570	IN-BOX VCR 329
3	288E4880	O.MANUAL VCR 329

ELECTRICAL PARTS LIST (VCR 330)

CABINET & CHASSIS (VCR 330)

Ref. No.	Part No.	Description
1	59275	DECK TN6500-104M
2	21046150	COVER (BOTTOM) PAL
3	21046171	COVER (TOP) PAL
4	21175770	BKT (BAR)
5	21234720	S.PLATE (AUD)
6	21291180	PLATE SPRING
7	22127741	REAR PANEL (RGB-2)
8	22151730	SPACER DECK-S
9	22151740	SPACER DECK-L
10	22151750	SPACER (DECK-2)
11	22327200	FACE PLATE ASS'Y (22327200)
12	22703591	CHASSIS
13	25350970	CUSHION
14	28004430	INSULATOR
15	2952305A	DPBS-3X5SSA
16	2953310A	DPBB-3X10SSA
17	2953310C	DPBB-3X10SSC
18	26021580	N801 POWER CORD
19	194001090	N201 FLEXIBLE WIRE 9P
20	1963104E0	N401 QS-CONN-8283-02 ##
*21	35N7510/36E3310	MAIN CIRCUIT BOARD (35N7510/36E3310)
*22	35N7140/36E2940	HEAD CIRCUIT BOARD (35N7140/36E2940)
*23	35N5420/36E8120	SUB1 CIRCUIT BOARD (35N5420/36E8120)
*24	35N5430/36E3030	SUB2 CIRCUIT BOARD (35N5430/36E3030)

For details of item marked *, refer to pages PL-14 – PL-22, and PL-32.

ACCESSORIES (VCR 330)

Ref. No.	Part No.	Description
1	1080639H0	REMOTE CONTROLLER,639
2	28527580	IN-BOX VCR 330
3	288E4890	O.MANUAL 330/331/332

ELECTRICAL PARTS LIST (VCR 331)

CABINET & CHASSIS (VCR 331)

Ref. No.	Part No.	Description
1	59275	DECK TN6500-104M
2	21046150	COVER (BOTTOM) PAL
3	21046171	COVER (TOP) PAL
4	21175770	BKT (BAR)
5	21234720	S.PLATE (AUD)
6	21291180	PLATE SPRING
7	22127741	REAR PANEL (RGB-2)
8	22151730	SPACER DECK-S
9	22151740	SPACER DECK-L
10	22151750	SPACER (DECK-2)
11	22327210	FACE PLATE ASS'Y (22327210)
12	22703591	CHASSIS
13	25350970	CUSHION
14	28004430	INSULATOR
15	2952305A	DPBS-3X5SSA
16	2953310A	DPBB-3X10SSA
17	2953310C	DPBB-3X10SSC
18	26021580	N801 POWER CORD
19	194001090	N201 FLEXIBLE WIRE 9P
20	1963104E0	N401 QS-CONN-8283-02 ##
*21	35N7210/36E3010	MAIN CIRCUIT BOARD (35N7210/36E3010)
*22	35N7140/36E2940	HEAD CIRCUIT BOARD (35N7140/36E2940)
*23	35N5420/36E8120	SUB1 CIRCUIT BOARD (35N5420/36E8120)
*24	35N5430/36E3030	SUB2 CIRCUIT BOARD (35N5430/36E3030)

For details of item marked *, refer to pages PL-23 – PL-32.

ACCESSORIES (VCR 331)

Ref. No.	Part No.	Description
1	1080638H0	REMOTE CONTROLLER,638
2	28527590	IN-BOX VCR 331
3	288E4890	O.MANUAL 330/331/332

ELECTRICAL PARTS LIST (VCR 332)

CABINET & CHASSIS (VCR 332)

Ref. No.	Part No.	Description
1	59275	DECK TN6500-104M
2	21046150	COVER (BOTTOM) PAL
3	21046171	COVER (TOP) PAL
4	21175770	BKT (BAR)
5	21234720	S.PLATE (AUD)
6	21291180	PLATE SPRING
7	22127741	REAR PANEL (RGB-2)
8	22151730	SPACER DECK-S
9	22151740	SPACER DECK-L
10	22151750	SPACER (DECK-2)
11	22327220	FACE PLATE ASS'Y (22327220)
12	22703591	CHASSIS
13	25350970	CUSHION
14	28004430	INSULATOR
15	2952305A	DPBS-3X5SSA
16	2953310A	DPBB-3X10SSA
17	2953310C	DPBB-3X10SSC
18	26021580	N801 POWER CORD
19	194001090	N201 FLEXIBLE WIRE 9P
20	1963104E0	N401 QS-CONN-8283-02 ##
*21	35N7510/36E3310	MAIN CIRCUIT BOARD (35N7510/36E3310)
*22	35N7140/36E2940	HEAD CIRCUIT BOARD (35N7140/36E2940)
*23	35N5420/36E8120	SUB1 CIRCUIT BOARD (35N5420/36E8120)
*24	35N5430/36E3030	SUB2 CIRCUIT BOARD (35N5430/36E3030)

For details of item marked *, refer to pages PL-14 – PL-22, and PL-32.

ACCESSORIES (VCR 332)

Ref. No.	Part No.	Description
1	1080638H0	REMOTE CONTROLLER,638
2	28527600	IN-BOX VCR 332
3	288E4890	O.MANUAL 330/331/332

PC BOARD ASS'Y(MAIN) 35P3710/36E8110

Ref. No.	Part No.	Description
C201,C219	157F3910E	CAPACITOR,CHIP,390PF 50V
C202,C217	15781810E	CAPACITOR,CHIP,180PF 50V
C203	15715600E	CAPACITOR,CHIP,56PF 50V
C204,C209	15712200E	CAPACITOR,CHIP,22PF 50V
C205,C212	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C206	15717R00E	CAPACITOR,CHIP,7PF 50V
C207	15711200E	CAPACITOR,CHIP,12PF 50V
C210,C240	15711010E	CAPACITOR,CHIP,100PF 50V
C211	15785610E	CAPACITOR,CHIP,560PF 50V
C213,C258	15714700E	CAPACITOR,CHIP,47PF 50V
C215,C235	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C216,C218	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C220,CC10	15713300E	CAPACITOR,CHIP,33PF 50V
C221,C223	157C2230E	CI-2125F223Z25-CT
C222,C227	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C225,C230	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C226,C229	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
C228,C233	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C231,C232	157C2230E	CI-2125F223Z25-CT
C234,C601	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C236,C254	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C237,C241	157C2230E	CI-2125F223Z25-CT
C238,C242	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C239,C404	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C243,C247	157A4730E	CAPACITOR,CHIP,0.047UF 25V
C244,C245	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C246,C403	157A1030E	CAPACITOR,CHIP,0.01UF 25V
C248,C758	157C2230E	CI-2125F223Z25-CT
C249,C411	157A4730E	CAPACITOR,CHIP,0.047UF 25V
C250,C755	15711010E	CAPACITOR,CHIP,100PF 50V
C253	15781210E	CAPACITOR,CHIP,120PF 50V
C255,C259	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C260,C418	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C263	157C1050E	CAPACITOR,CHIP,1UF 16V
C401,C412	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C402,C419	155347625	CE-SSM47M16-FT
C405,C409	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C406,C851	155633525	CAPACITOR,ELECTROLYTIC,3.3UF 50V
C408	155447525	CAPACITOR,ELECTROLYTIC,4.7UF 25V
C410,C417	157A1030E	CAPACITOR,CHIP,0.01UF 25V
C413,C602	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C414,CD37	157A1520E	CAPACITOR,CHIP,1500PF 50V
C416	157A2220E	CAPACITOR,CHIP,2200PF 50V
C420	153C47305	CAPACITOR,MYLAR,0.047UF 100V
C421	155347625	CE-SSM47M16-FT
C422,C756	155647425	CAPACITOR,ELECTROLYTIC,0.47UF 50V

PC BOARD ASS'Y(MAIN) 35P3710/36E8110

Ref. No.	Part No.	Description
C423,C713	157A3320E	CAPACITOR,CHIP,3300PF 50V
C424	155310725	CAPACITOR,ELECTROLYTIC,100UF 16V
C426	157A6810E	CAPACITOR,CHIP,680PF 50V
C427,CC02	15714700E	CAPACITOR,CHIP,47PF 50V
C701,C711	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C702	1552227G5	CAPACITOR,ELECTROLYTIC,220UF 10V
C703,C721	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C704	155322625	CAPACITOR,ELECTROLYTIC,22UF 16V
C705,C716	157A1030E	CAPACITOR,CHIP,0.01UF 25V
C706,C707	15712200E	CAPACITOR,CHIP,22PF 50V
C708,C709	15712200E	CAPACITOR,CHIP,22PF 50V
C710	1507015C5	CAPACITOR,SUPER,DFM479Z5T
C712,C720	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C714,C765	157A1020E	CAPACITOR,CHIP,1000PF 50V
C715,C809	157A3320E	CAPACITOR,CHIP,3300PF 50V
C719,CD38	15784710E	CAPACITOR,CHIP,470PF 50V
C722,CC12	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C753,C768	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C754,C759	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C761,CA09	15711010E	CAPACITOR,CHIP,100PF 50V
C762,C763	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C766,C769	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
C767,CD01	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C775,CC03	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C783,CA02	157C2230E	CI-2125F223Z25-CT
C801	150907300	CC-PA104L250
C802	150908210	CC-KC472M250
C805	150908850	CC-ECKDNA332M250
C806	155K476G0	CAPACITOR,ELECTROLYTIC,47UF 400V
C807	150907710	CC-B103K500
C808	150908015	CC-SL560J1000-FT
C810,CA08	157F8220E	CAPACITOR,CHIP,8200PF 50V
C811	157A2730E	CAPACITOR,CHIP,0.027UF 25V
C812	157A2230E	CAPACITOR,CHIP,0.022UF 25V
C813	157A3330E	CAPACITOR,CHIP,0.033UF 25V
C817,C818	1553477M5	CAPACITOR,ELECTROLYTIC,470UF 16V
C819	1556226G5	CAPACITOR,ELECTROLYTIC,22UF 50V
C820,C852	1553477M5	CAPACITOR,ELECTROLYTIC,470UF 16V
C821	1553108M4	CAPACITOR,ELECTROLYTIC,1000UF 16V
C822	1553107G5	CAPACITOR,ELECTROLYTIC,100UF 16V
C850	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C853	155647425	CAPACITOR,ELECTROLYTIC,0.47UF 50V
CA01,CA03	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
CA04,CD04	1553477M5	CAPACITOR,ELECTROLYTIC,470UF 16V
CA06,CC07	157C2230E	CI-2125F223Z25-CT
CA07,CC06	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V

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Ref. No.	Part No.	Description
CA10	15711010E	CAPACITOR,CHIP,100PF 50V
CC04	157F3910E	CAPACITOR,CHIP,390PF 50V
CC08,CC09	15712200E	CAPACITOR,CHIP,22PF 50V
CC11	15712200E	CAPACITOR,CHIP,22PF 50V
CD02,CD23	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD29	157A1530E	CAPACITOR,CHIP,0.015UF 25V
CD30,CD31	157A1020E	CAPACITOR,CHIP,1000PF 50V
CD32	157A1020E	CAPACITOR,CHIP,1000PF 50V
D201,D202	131002101	DIODE,1SS254T
D204,D402	131002101	DIODE,1SS254T
D701,D702	131002101	DIODE,1SS254T
D801,D802	132014201	DIODE,1A5T
D803,D804	132014201	DIODE,1A5T
D805	132014606	DIODE,EG01C-FT
D806,D807	131002101	DIODE,1SS254T
D808,D810	131003001	DIODE,1SS244T
D809	132013508	DIODE,RU2YX-PF
D811	132013709	DIODE,AK03-RT
D812,D821	131003001	DIODE,1SS244T
D815,D822	131002101	DIODE,1SS254T
D816	132014101	DIODE,1A4T
D819	134015131	DIODE,ZENER,MTZJ6.8T-B
D820	134015021	DIODE,ZENER,MTZJ6.2T-B
D823	134014721	DIODE,ZENER,MTZJ10T-C
D830,D831	131002101	DIODE,1SS254T
D850	134019511	DIODE,ZENER,MTZJ33T-A,B
D852,D853	131002101	DIODE,1SS254T
D854	134016621	DIODE,ZENER,MTZJ11T-A
D880,DD01	131002101	DIODE,1SS254T
ETA01	104305750	ELECTRONIC TUNER,ENG57510G
F201	1764139B0	X'TAL,HC49U-4.433619MHZ
F701	1764134B0	X'TAL,HC-49U-S12.00MHZ
F702	176300500	X'TAL,32.768KHZ-10PPM
FC01	1764084C0	X'TAL,HC-49U17.734475MHZ
FH801, FH802	26N20110	FUSE HOLDER CNT47
H701	143002000	FIP,7-MT-183G
IC201	111729300	IC,LA7437
IC203	112285300	IC,LC89970
IC401	111717300	IC,LA7286
IC601	111718200	IC,TA7291S
IC701	119326400	IC,CXP88140-137Q
IC702	111721507	IC,PST9129T-RT
IC704	113111B00	IC,AT24C01A

(*The IC ROM settings vary for each model, so please specify the model you are using when ordering replacement IC-ROM 704 parts.)

Ref. No.	Part No.	Description
IC750	111380300	IC,LA7116
IC801	145300900	PHOTOCOUPLER,PS2561-1-MDHW-V

PC BOARD ASS'Y(MAIN) 35P3710/36E8110

Ref. No.	Part No.	Description
IC802	111719207	IC,TA76431S-RT
ICC01	119304300	IC,LC74781-XXXX
ICD01	112283700	IC,CD4052BE
J401,J409	198302901	JUMPER 20MM(INSERT)
J402,J403	198302101	JUMPER 15MM (INSERT)
J404,J417	198300101	JUMPER 5MM (INSERT)
J405,J414	198302001	JUMPER 12.5MM (INS)
J406,J407	198301901	JUMPER 10MM (INSERT)
J408,J411	198301901	JUMPER 10MM (INSERT)
J410,J412	198301801	JUMPER 7.5MM(INSERT)
J413,J420	198302201	JUMPER 17.5MM(INS)
J415,J425	198301901	JUMPER 10MM (INSERT)
J416,J429	198301801	JUMPER 7.5MM(INSERT)
J418,J427	198302901	JUMPER 20MM(INSERT)
J419,J422	198302001	JUMPER 12.5MM (INS)
J421,J475	198300101	JUMPER 5MM (INSERT)
J423,J426	198302101	JUMPER 15MM (INSERT)
J424,J447	198302201	JUMPER 17.5MM(INS)
J428,J436	198302001	JUMPER 12.5MM (INS)
J430,J435	198302101	JUMPER 15MM (INSERT)
J431,J432	198301901	JUMPER 10MM (INSERT)
J433,J434	198301801	JUMPER 7.5MM(INSERT)
J438,J439	198302901	JUMPER 20MM(INSERT)
J440,J444	198303101	JUMPER 25MM (INSERT)
J443,J449	198302901	JUMPER 20MM(INSERT)
J445,J450	198301901	JUMPER 10MM (INSERT)
J446,J448	198302001	JUMPER 12.5MM (INS)
J451,J452	198302001	JUMPER 12.5MM (INS)
J453,J454	198302101	JUMPER 15MM (INSERT)
J455,J456	198301901	JUMPER 10MM (INSERT)
J457,J476	198303101	JUMPER 25MM (INSERT)
J458,J481	198302901	JUMPER 20MM(INSERT)
J459,J460	198302201	JUMPER 17.5MM(INS)
J462,J490	198301801	JUMPER 7.5MM(INSERT)
J465,J466	198302001	JUMPER 12.5MM (INS)
J467,J468	198301901	JUMPER 10MM (INSERT)
J469,J508	198302201	JUMPER 17.5MM(INS)
J470,J472	198301901	JUMPER 10MM (INSERT)
J473,J480	198302001	JUMPER 12.5MM (INS)
J477,J478	198303101	JUMPER 25MM (INSERT)
J479,J486	198302101	JUMPER 15MM (INSERT)
J482,J483	198302001	JUMPER 12.5MM (INS)
J484,J485	198302901	JUMPER 20MM(INSERT)
J487,J489	198301901	JUMPER 10MM (INSERT)
J488,J496	198302101	JUMPER 15MM (INSERT)
J491,J506	198302001	JUMPER 12.5MM (INS)

PC BOARD ASS'Y(MAIN) 35P3710/36E8110

Ref. No.	Part No.	Description
J492,J494	198300101	JUMPER 5MM (INSERT)
J495,J527	198301801	JUMPER 7.5MM(INSERT)
J497,J498	198301901	JUMPER 10MM (INSERT)
J499,J504	198301901	JUMPER 10MM (INSERT)
J501,J502	198302901	JUMPER 20MM(INSERT)
J503,J505	198302901	JUMPER 20MM(INSERT)
J507,J519	198300101	JUMPER 5MM (INSERT)
J509,J520	198301901	JUMPER 10MM (INSERT)
J510,J521	198302901	JUMPER 20MM(INSERT)
J511,J514	198302201	JUMPER 17.5MM(INS)
J512,J513	198302101	JUMPER 15MM (INSERT)
J515,J516	198302101	JUMPER 15MM (INSERT)
J517,J518	198302101	JUMPER 15MM (INSERT)
J522,J524	198302901	JUMPER 20MM(INSERT)
J523,J526	198301901	JUMPER 10MM (INSERT)
J525,J548	198302901	JUMPER 20MM(INSERT)
J528,J538	198302001	JUMPER 12.5MM (INS)
J529,J530	198301901	JUMPER 10MM (INSERT)
J531,J537	198300101	JUMPER 5MM (INSERT)
J532,J539	198301801	JUMPER 7.5MM(INSERT)
J535,J549	198302101	JUMPER 15MM (INSERT)
J536,J547	198301901	JUMPER 10MM (INSERT)
J541,J542	198301801	JUMPER 7.5MM(INSERT)
J543,J544	198301801	JUMPER 7.5MM(INSERT)
J545,J563	198302201	JUMPER 17.5MM(INS)
J546,J551	198301801	JUMPER 7.5MM(INSERT)
J550	198303101	JUMPER 25MM (INSERT)
J552,J581	198302101	JUMPER 15MM (INSERT)
J553,J580	198301801	JUMPER 7.5MM(INSERT)
J554,J562	198302001	JUMPER 12.5MM (INS)
J559,J569	198300101	JUMPER 5MM (INSERT)
J560,J561	198301901	JUMPER 10MM (INSERT)
J564,J571	198302001	JUMPER 12.5MM (INS)
J566,J567	198301901	JUMPER 10MM (INSERT)
J568,J573	198301901	JUMPER 10MM (INSERT)
J570	198302201	JUMPER 17.5MM(INS)
J572	198302901	JUMPER 20MM(INSERT)
J576,J585	198302001	JUMPER 12.5MM (INS)
J584,J590	198300101	JUMPER 5MM (INSERT)
J588,J593	198302001	JUMPER 12.5MM (INS)
J591,J596	198301901	JUMPER 10MM (INSERT)
J592,J594	198302101	JUMPER 15MM (INSERT)
J597	198301901	JUMPER 10MM (INSERT)
J600	198300101	JUMPER 5MM (INSERT)
L201	172015627	L-LF-5.0-181J-ST
L203,LC02	172012327	L-LF-5.0-330J-ST

PC BOARD ASS'Y(MAIN) 35P3710/36E8110

Ref. No.	Part No.	Description
L204	172015427	L-LF-5.0-820J-ST
L205,L214	172012227	L-LF-5.0-470J-ST
L206,L211	172019427	COIL,LF-5.0-390J-ST
L207	172012127	L-LF-5.0-100J-ST
L209	172012527	L-LF-5.0-101J-ST
L212,L402	172007734	COIL,EL0606RA-101J-FT
L213,L805	172007634	COIL,EL0606RA-100J-FT
L401	171055600	COIL,OSC-BIAS (11V)
L801	173006180	COIL,ELF18D290A
L803,L804	172022944	COIL,LHL06TB220K-FT
LC01	172007734	COIL,EL0606RA-101J-FT
LD02	177101664	CORE-BL02RN1-R2-FT
LD03,LD04	172011827	L-LF-5.0-3R3J-ST
LD790	141014900	LED,SLR-932A
LD791, LD792	141023500	LED,SLR-981A
MD701	106012100	MODULE,TFMX5380SN
MP201	22127610	HOLDER FIP-L
MP202	22127620	HOLDER FIP-R
MP203, MP207	22127580	HOLDER (1)
MP204, MP208	22127590	HOLDER (2)
MP205	22127600	HOLDER (5)
MP206	21234760	SHIELD PLATE (DECK)
N401	1963104E0	QS-CONN-8283-02 ##
N701	191223050	WIRE M-GND
P201	198130529	POST-09FE-BT-VK-N
P701	1981299AS	POST-TVK-A28X-B1
P702,P703	1981270G2	POST-00-8283-0212-0
P801	198130722	POST-B2P3-VH
PD01	26563170	CONN
PQ790, PQ791	120013100	TRANSISTOR,SPS-1118C
PQ792, PQ793	120013100	TRANSISTOR,SPS-1118C
Q201,Q202	123245811	TRANSISTOR,2SC2458T-Y,GR
Q203,Q206	123245811	TRANSISTOR,2SC2458T-Y,GR
Q205,QD01	120002401	TRANSISTOR,DTA124EST
Q401	123195901	TRANSISTOR,2SC1959T-GR
Q790,QD02	120004601	TRANSISTOR,RN1203,TPE4
Q801	124213201	TRANSISTOR,2SD2132T-V,W
Q802	123451700	TRANSISTOR,2SC4517
Q803,Q852	123245811	TRANSISTOR,2SC2458T-Y,GR
Q851	124158101	TRANSISTOR,2SD1581T-L,M
QA01	120003201	TRANSISTOR,RN2205ST
QC01,QC02	121104811	TRANSISTOR,2SA1048T-GR
QD05	123245811	TRANSISTOR,2SC2458T-Y,GR
R200,R202	165218206	RESISTOR,CHIP,1.8KOHM 1/10W
R203,R219	165268106	RESISTOR,CHIP,680OHM 1/10W
R204,R205	165239106	RESISTOR,CHIP,390OHM 1/10W

PC BOARD ASS'Y(MAIN) 35P3710/36E8110

Ref. No.	Part No.	Description
R206,R215	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
R207,R226	165282106	RESISTOR,CHIP,820OHM 1/10W
R208,R212	165210206	RESISTOR,CHIP,1KOHM 1/10W
R209,R210	165256106	RESISTOR,CHIP,560OHM 1/10W
R211,R707	165212206	RESISTOR,CHIP,1.2KOHM 1/10W
R214,R418	165239206	RESISTOR,CHIP,3.9KOHM 1/10W
R216,R706	165215206	RESISTOR,CHIP,1.5KOHM 1/10W
R217,R713	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R218,R409	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
R220,R408	165227206	RESISTOR,CHIP,2.7KOHM 1/10W
R221,R422	165200006	RESISTOR,CHIP,0OHM 1/10W
R222	165282306	RESISTOR,CHIP,82KOHM 1/10W
R223,R423	165210206	RESISTOR,CHIP,1KOHM 1/10W
R224	165218206	RESISTOR,CHIP,1.8KOHM 1/10W
R225,R735	165282206	RESISTOR,CHIP,8.2KOHM 1/10W
R227	165268106	RESISTOR,CHIP,680OHM 1/10W
R228,R229	165210306	RESISTOR,CHIP,10KOHM 1/10W
R230,R709	165210306	RESISTOR,CHIP,10KOHM 1/10W
R231,R407	165247306	RESISTOR,CHIP,47KOHM 1/10W
R255	165256106	RESISTOR,CHIP,560OHM 1/10W
R401,R416	165218106	RESISTOR,CHIP,180OHM 1/10W
R402,R715	165233406	RESISTOR,CHIP,330KOHM 1/10W
R403,R756	165212306	RESISTOR,CHIP,12KOHM 1/10W
R405,R723	165256206	RESISTOR,CHIP,5.6KOHM 1/10W
R406	165218506	RESISTOR,CHIP,1800.0KOHM 1/10W
R410,R812	165227206	RESISTOR,CHIP,2.7KOHM 1/10W
R411,R705	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
R412,RD02	165227306	RESISTOR,CHIP,27KOHM 1/10W
R413,RD03	165215306	RESISTOR,CHIP,15KOHM 1/10W
R414,R420	165247006	RESISTOR,CHIP,47OHM 1/10W
R415	16524R706	RESISTOR,CHIP,4.7OHM 1/10W
R417,R704	165233206	RESISTOR,CHIP,3.3KOHM 1/10W
R421	165210106	RESISTOR,CHIP,100OHM 1/10W
R424	165215406	RESISTOR,CHIP,150KOHM 1/10W
R601,R602	161310004	RESISTOR,CARBON,10OHM 1/6W
R603,R858	161310004	RESISTOR,CARBON,10OHM 1/6W
R710,R714	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
R711,R732	165210306	RESISTOR,CHIP,10KOHM 1/10W
R712,R752	165210406	RESISTOR,CHIP,100KOHM 1/10W
R716,R717	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R718,R719	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R720,R730	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R721	165256306	RESISTOR,CHIP,56KOHM 1/10W
R722	165212406	RESISTOR,CHIP,120KOHM 1/10W
R724	165233206	RESISTOR,CHIP,3.3KOHM 1/10W
R726,R729	165222306	RESISTOR,CHIP,22KOHM 1/10W

PC BOARD ASS'Y(MAIN) 35P3710/36E8110

Ref. No.	Part No.	Description
R727,R728	165247306	RESISTOR,CHIP,47KOHM 1/10W
R731	165239306	RESISTOR,CHIP,39KOHM 1/10W
R733,R734	165247306	RESISTOR,CHIP,47KOHM 1/10W
R737,R740	165210306	RESISTOR,CHIP,10KOHM 1/10W
R739,R743	165247306	RESISTOR,CHIP,47KOHM 1/10W
R750,R785	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R751,R811	165239206	RESISTOR,CHIP,3.9KOHM 1/10W
R753,R754	165210306	RESISTOR,CHIP,10KOHM 1/10W
R755,R781	165210306	RESISTOR,CHIP,10KOHM 1/10W
R757	165233106	RESISTOR,CHIP,330OHM 1/10W
R758	165233406	RESISTOR,CHIP,330KOHM 1/10W
R759,R761	165210206	RESISTOR,CHIP,1KOHM 1/10W
R760,RA02	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
R770,R824	165210206	RESISTOR,CHIP,1KOHM 1/10W
R782,R784	165210306	RESISTOR,CHIP,10KOHM 1/10W
R786,R850	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R790,R792	165256406	RESISTOR,CHIP,560KOHM 1/10W
R791,R796	165218006	RESISTOR,CHIP,18OHM 1/10W
R793,R795	165256206	RESISTOR,CHIP,5.6KOHM 1/10W
R794,R798	165247006	RESISTOR,CHIP,47OHM 1/10W
R797	165218006	RESISTOR,CHIP,18OHM 1/10W
R802	16C34R71A	RESISTOR4.7OHM 3W
R803,R804	161382304	RESISTOR,CARBON,82KOHM 1/6W
R805,R806	161382304	RESISTOR,CARBON,82KOHM 1/6W
R807,R808	161368304	RESISTOR,CARBON,68KOHM 1/6W
R809	16428230A	RESISTOR,OXIDE METAL FILM,82KOHM 2W
R810	16411210A	RESISTOR,OXIDE METAL FILM,120OHM 1W
R813	165247106	RESISTOR,CHIP,470OHM 1/10W
R814	16311R20A	RESISTOR,METAL FILM,1.2OHM 1/2W
R820,R821	161368304	RESISTOR,CARBON,68KOHM 1/6W
R832,R833	161315204	RESISTOR,CARBON,1.5KOHM 1/6W
R834,R836	161382104	RESISTOR,CARBON,820OHM 1/6W
R852,R853	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R854	165218306	RESISTOR,CHIP,18KOHM 1/10W
R856,R857	165247006	RESISTOR,CHIP,47OHM 1/10W
R859	165210306	RESISTOR,CHIP,10KOHM 1/10W
R880	165222306	RESISTOR,CHIP,22KOHM 1/10W
R881	165247306	RESISTOR,CHIP,47KOHM 1/10W
R882	165222106	RESISTOR,CHIP,220OHM 1/10W
R883,RD06	165210206	RESISTOR,CHIP,1KOHM 1/10W
R884	165C30206	RESISTOR,CHIP,2KOHM 1/10W
R885	165C20206	RESISTOR,CHIP,2KOHM 1/10W
R886	165282106	RESISTOR,CHIP,820OHM 1/10W
R887	165247006	RESISTOR,CHIP,47OHM 1/10W
RA01,RD01	165256206	RESISTOR,CHIP,5.6KOHM 1/10W
RA03	165200006	RESISTOR,CHIP,0OHM 1/10W

PC BOARD ASS'Y(MAIN) 35P3710/36E8110

Ref. No.	Part No.	Description
RA04,RA06	165210406	RESISTOR,CHIP,100KOHM 1/10W
RA05,RD07	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
RC01	161233108	RESISTOR,CARBON,330OHM 1/4W
RC04,RC05	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
RC06,RD26	165210406	RESISTOR,CHIP,100KOHM 1/10W
RD10,RD12	165275006	RESISTOR,CHIP,75OHM 1/10W
RD16	16133R304	RESISTOR,CARBON,3.3OHM 1/6W
RD27	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
SW701,SW7A5	23A11520	SWITCH SOR-142HS
SW790,SW791	23M10070	LEAF SW 10480 MLB0
SW7A6,SW7A7	23A11520	SWITCH SOR-142HS
SWA01	23D11190	SLIDE SW SSAA11
T801	174401080	TRANSFORMER,SWT-ZTS2714V
Z801	26GA022	MINI FUSE T1.6A250V
	21144810	HEATSINK
	2953308A	DPBB-3X8SSA

PC BOARD ASS'Y(MAIN) 35N7510/36E3310

Ref. No.	Part No.	Description
C201,C219	157F3910E	CAPACITOR,CHIP,390PF 50V
C202,C217	15781810E	CAPACITOR,CHIP,180PF 50V
C203	15715600E	CAPACITOR,CHIP,56PF 50V
C204,C209	15712200E	CAPACITOR,CHIP,22PF 50V
C205,C212	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C206	15717R00E	CAPACITOR,CHIP,7PF 50V
C207	15711200E	CAPACITOR,CHIP,12PF 50V
C210,C240	15711010E	CAPACITOR,CHIP,100PF 50V
C211	15785610E	CAPACITOR,CHIP,560PF 50V
C213,C258	15714700E	CAPACITOR,CHIP,47PF 50V
C215,C235	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C216,C218	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C220,CC10	15713300E	CAPACITOR,CHIP,33PF 50V
C221,C223	157C2230E	CI-2125F223Z25-CT
C222,C227	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C225,C230	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C226,C229	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
C228,C233	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C231,C232	157C2230E	CI-2125F223Z25-CT
C234,C601	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C236,C254	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C237,C241	157C2230E	CI-2125F223Z25-CT
C238,C242	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C239,C404	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C243,C247	157A4730E	CAPACITOR,CHIP,0.047UF 25V
C244,C245	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C246,C403	157A1030E	CAPACITOR,CHIP,0.01UF 25V
C248,C758	157C2230E	CI-2125F223Z25-CT
C249,C411	157A4730E	CAPACITOR,CHIP,0.047UF 25V
C250,C755	15711010E	CAPACITOR,CHIP,100PF 50V
C253	15781210E	CAPACITOR,CHIP,120PF 50V
C255,C259	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C260,C418	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C263	157C1050E	CAPACITOR,CHIP,1UF 16V
C401,C412	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C402,C419	155347625	CE-SSM47M16-FT
C405,C409	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C406,C851	155633525	CAPACITOR,ELECTROLYTIC,3.3UF 50V
C408	155447525	CAPACITOR,ELECTROLYTIC,4.7UF 25V
C410,C417	157A1030E	CAPACITOR,CHIP,0.01UF 25V
C413,C602	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C414,C810	157F8220E	CAPACITOR,CHIP,8200PF 50V
C416	157A2220E	CAPACITOR,CHIP,2200PF 50V
C420	153C47305	CAPACITOR,MYLAR,0.047UF 100V
C421,CD45	155347625	CE-SSM47M16-FT
C422,C756	155647425	CAPACITOR,ELECTROLYTIC,0.47UF 50V

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Ref. No.	Part No.	Description
C423,C713	157A3320E	CAPACITOR,CHIP,3300PF 50V
C424	155310725	CAPACITOR,ELECTROLYTIC,100UF 16V
C426	157A6810E	CAPACITOR,CHIP,680PF 50V
C427,CC02	15714700E	CAPACITOR,CHIP,47PF 50V
C701,C711	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C702	1552227G5	CAPACITOR,ELECTROLYTIC,220UF 10V
C703,C721	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C704	155322625	CAPACITOR,ELECTROLYTIC,22UF 16V
C705,C716	157A1030E	CAPACITOR,CHIP,0.01UF 25V
C706,C707	15712200E	CAPACITOR,CHIP,22PF 50V
C708,C709	15712200E	CAPACITOR,CHIP,22PF 50V
C710	1507015C5	CAPACITOR,SUPER,DFM479Z5T
C712,C720	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C714,C765	157A1020E	CAPACITOR,CHIP,1000PF 50V
C715,C809	157A3320E	CAPACITOR,CHIP,3300PF 50V
C719,CD40	15784710E	CAPACITOR,CHIP,470PF 50V
C722,CC12	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C753,C768	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C754,C759	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C761,CA09	15711010E	CAPACITOR,CHIP,100PF 50V
C762,C763	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C766,C769	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
C767,CD11	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C775,CC03	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C783,CA02	157C2230E	CI-2125F223Z25-CT
C801	150907300	CC-PA104L250
C802	150908210	CC-KC472M250
C805	150908610	CC-KD332M250
C806	155K476G0	CAPACITOR,ELECTROLYTIC,47UF 400V
C807	150907710	CC-B103K500
C808	150908015	CC-SL560J1000-FT
C811	157A2730E	CAPACITOR,CHIP,0.027UF 25V
C812	157A2230E	CAPACITOR,CHIP,0.022UF 25V
C813,CE03	157A3330E	CAPACITOR,CHIP,0.033UF 25V
C817,C818	1553477M5	CAPACITOR,ELECTROLYTIC,470UF 16V
C819	1556226G5	CAPACITOR,ELECTROLYTIC,22UF 50V
C820,C852	1553477M5	CAPACITOR,ELECTROLYTIC,470UF 16V
C821	1553108M4	CAPACITOR,ELECTROLYTIC,1000UF 16V
C822,CD21	1553107G5	CAPACITOR,ELECTROLYTIC,100UF 16V
C850,CD12	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C853	155647425	CAPACITOR,ELECTROLYTIC,0.47UF 50V
CA01,CA03	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
CA04,CD04	1553477M5	CAPACITOR,ELECTROLYTIC,470UF 16V
CA06,CC07	157C2230E	CI-2125F223Z25-CT
CA07,CC06	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
CA08	157F8220E	CAPACITOR,CHIP,8200PF 50V

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Ref. No.	Part No.	Description
CA10	15711010E	CAPACITOR,CHIP,100PF 50V
CC04	157F3910E	CAPACITOR,CHIP,390PF 50V
CC08,CC09	15712200E	CAPACITOR,CHIP,22PF 50V
CC11	15712200E	CAPACITOR,CHIP,22PF 50V
CD13,CD14	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD15,CD17	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD16,CE02	157B1040E	CAPACITOR,CHIP,0.1UF 25V
CD19,CD20	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD22,CD25	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD24	1553477M5	CAPACITOR,ELECTROLYTIC,470UF 16V
CD26,CD27	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD28	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD29	157A1530E	CAPACITOR,CHIP,0.015UF 25V
CD30,CD31	157A1020E	CAPACITOR,CHIP,1000PF 50V
CD32,CD34	157A1020E	CAPACITOR,CHIP,1000PF 50V
CD36	157A1020E	CAPACITOR,CHIP,1000PF 50V
CD39,CD41	157A1520E	CAPACITOR,CHIP,1500PF 50V
CD42	15784710E	CAPACITOR,CHIP,470PF 50V
CD43	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
CE01	15781510E	CAPACITOR,CHIP,150PF 50V
CE04	157C1030E	CAPACITOR,CHIP,0.01UF 25V
D201,D202	131002101	DIODE,1SS254T
D204,D402	131002101	DIODE,1SS254T
D701,D702	131002101	DIODE,1SS254T
D801,D802	132014201	DIODE,1A5T
D803,D804	132014201	DIODE,1A5T
D805	132014606	DIODE,EG01C-FT
D806,D807	131002101	DIODE,1SS254T
D808,D810	131003001	DIODE,1SS244T
D809	132013508	DIODE,RU2YX-PF
D811	132013709	DIODE,AK03-RT
D812,D821	131003001	DIODE,1SS244T
D815,D822	131002101	DIODE,1SS254T
D816	132014101	DIODE,1A4T
D819	134015131	DIODE,ZENER,MTZJ6.8T-B
D820	134015021	DIODE,ZENER,MTZJ6.2T-B
D823	134014721	DIODE,ZENER,MTZJ10T-C
D830,D831	131002101	DIODE,1SS254T
D850	134019511	DIODE,ZENER,MTZJ33T-A,B
D852,D853	131002101	DIODE,1SS254T
D854	134016621	DIODE,ZENER,MTZJ11T-A
D880	131002101	DIODE,1SS254T
ETA01	104305750	ELECTRONIC TUNER,ENG57510G
F201	1764139B0	X'TAL,HC49U-4.433619MHZ
F701	1764134B0	X'TAL,HC-49U-S12.00MHZ
F702	176300500	X'TAL,32.768KHZ-10PPM

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Ref. No.	Part No.	Description
FC01	1764084C0	X'TAL,HC-49U17.734475MHZ
FH801,FH802	26N20110	FUSE HOLDER CNT47
H701	143002000	FIP,7-MT-183G
IC201	111729300	IC,LA7437
IC203	112285300	IC,LC89970
IC401	111717300	IC,LA7286
IC601	111718200	IC,TA7291S
IC701	119327400	IC,CXP88140-138Q
IC702	111721507	IC,PST9129T-RT
IC704	113112B00	IC,AT24C02
(*The IC ROM settings vary for each model, so please specify the model you are using when ordering replacement IC-ROM 704 parts.)		
IC750	111380300	IC,LA7116
IC801	145300900	PHOTOCOUPLER,PS2561-1-MDHW-V
IC802	111719207	IC,TA76431S-RT
ICC01	119304300	IC,LC74781-XXXX
ICD02	111731300	IC,LA7156
ICE01	111439800	IC,SDA5642
J401,J409	198302901	JUMPER 20MM(INSERT)
J402,J403	198302101	JUMPER 15 (INSERT)
J404,J417	198300101	JUMPER 5MM (INSERT)
J405,J414	198302001	JUMPER 12.5MM (INS)
J406,J407	198301901	JUMPER 10MM (INSERT)
J408,J411	198301901	JUMPER 10MM (INSERT)
J410,J412	198301801	JUMPER 7.5MM(INSERT)
J413,J420	198302201	JUMPER 17.5MM(INS)
J415,J425	198301901	JUMPER 10MM (INSERT)
J416,J429	198301801	JUMPER 7.5MM(INSERT)
J418,J427	198302901	JUMPER 20MM(INSERT)
J419,J422	198302001	JUMPER 12.5MM (INS)
J421,J475	198300101	JUMPER 5MM (INSERT)
J423,J426	198302101	JUMPER 15 (INSERT)
J424,J447	198302201	JUMPER 17.5MM(INS)
J428,J436	198302001	JUMPER 12.5MM (INS)
J430,J435	198302101	JUMPER 15 (INSERT)
J431,J432	198301901	JUMPER 10MM (INSERT)
J433,J434	198301801	JUMPER 7.5MM(INSERT)
J438,J439	198302901	JUMPER 20MM(INSERT)
J440,J444	198303101	JUMPER 25MM (INSERT)
J441,J446	198302001	JUMPER 12.5MM (INS)
J443,J449	198302901	JUMPER 20MM(INSERT)
J445,J450	198301901	JUMPER 10MM (INSERT)
J448,J451	198302001	JUMPER 12.5MM (INS)
J452,J465	198302001	JUMPER 12.5MM (INS)
J453,J454	198302101	JUMPER 15 (INSERT)
J455,J456	198301901	JUMPER 10MM (INSERT)
J457,J476	198303101	JUMPER 25MM (INSERT)

PC BOARD ASS'Y(MAIN) 35N7510/36E3310

Ref. No.	Part No.	Description
J458,J481	198302901	JUMPER 20MM(INSERT)
J459,J460	198302201	JUMPER 17.5MM(INS)
J462,J490	198301801	JUMPER 7.5MM(INSERT)
J466,J473	198302001	JUMPER 12.5MM (INS)
J467,J468	198301901	JUMPER 10MM (INSERT)
J469,J508	198302201	JUMPER 17.5MM(INS)
J470,J472	198301901	JUMPER 10MM (INSERT)
J477,J478	198303101	JUMPER 25MM (INSERT)
J479,J486	198302101	JUMPER 15 (INSERT)
J480,J482	198302001	JUMPER 12.5MM (INS)
J483,J491	198302001	JUMPER 12.5MM (INS)
J484,J485	198302901	JUMPER 20MM(INSERT)
J487,J489	198301901	JUMPER 10MM (INSERT)
J488,J496	198302101	JUMPER 15 (INSERT)
J492,J494	198300101	JUMPER 5MM (INSERT)
J495,J527	198301801	JUMPER 7.5MM(INSERT)
J497,J498	198301901	JUMPER 10MM (INSERT)
J499,J504	198301901	JUMPER 10MM (INSERT)
J501,J502	198302901	JUMPER 20MM(INSERT)
J503,J505	198302901	JUMPER 20MM(INSERT)
J506,J528	198302001	JUMPER 12.5MM (INS)
J507,J519	198300101	JUMPER 5MM (INSERT)
J509,J520	198301901	JUMPER 10MM (INSERT)
J510,J521	198302901	JUMPER 20MM(INSERT)
J511,J514	198302201	JUMPER 17.5MM(INS)
J512,J513	198302101	JUMPER 15 (INSERT)
J515,J516	198302101	JUMPER 15 (INSERT)
J517,J518	198302101	JUMPER 15 (INSERT)
J522,J524	198302901	JUMPER 20MM(INSERT)
J523,J526	198301901	JUMPER 10MM (INSERT)
J525,J548	198302901	JUMPER 20MM(INSERT)
J529,J530	198301901	JUMPER 10MM (INSERT)
J531,J537	198300101	JUMPER 5MM (INSERT)
J532,J539	198301801	JUMPER 7.5MM(INSERT)
J534,J535	198302101	JUMPER 15 (INSERT)
J536,J547	198301901	JUMPER 10MM (INSERT)
J541,J543	198301801	JUMPER 7.5MM(INSERT)
J544,J546	198301801	JUMPER 7.5MM(INSERT)
J545,J557	198302201	JUMPER 17.5MM(INS)
J549,J579	198302101	JUMPER 15 (INSERT)
J550	198303101	JUMPER 25MM (INSERT)
J551,J553	198301801	JUMPER 7.5MM(INSERT)
J554,J562	198302001	JUMPER 12.5MM (INS)
J555,J560	198301901	JUMPER 10MM (INSERT)
J556,J574	198301801	JUMPER 7.5MM(INSERT)
J558,J572	198302901	JUMPER 20MM(INSERT)

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Ref. No.	Part No.	Description
J561,J566	198301901	JUMPER 10MM (INSERT)
J563,J570	198302201	JUMPER 17.5MM(INS)
J564,J571	198302001	JUMPER 12.5MM (INS)
J567,J568	198301901	JUMPER 10MM (INSERT)
J569,J575	198300101	JUMPER 5MM (INSERT)
J573,J577	198301901	JUMPER 10MM (INSERT)
J576,J583	198302001	JUMPER 12.5MM (INS)
J578,J589	198301801	JUMPER 7.5MM(INSERT)
J581,J594	198302101	JUMPER 15 (INSERT)
J584,J600	198300101	JUMPER 5MM (INSERT)
J585,J588	198302001	JUMPER 12.5MM (INS)
J586,J587	198301901	JUMPER 10MM (INSERT)
J593	198302001	JUMPER 12.5MM (INS)
J596,J597	198301901	JUMPER 10MM (INSERT)
J605,J608	198300101	JUMPER 5MM (INSERT)
L201	172015627	L-LF-5.0-181J-ST
L203,LC02	172012327	L-LF-5.0-330J-ST
L204	172015427	L-LF-5.0-820J-ST
L205,L214	172012227	L-LF-5.0-470J-ST
L206,L211	172019427	COIL,LF-5.0-390J-ST
L207	172012127	L-LF-5.0-100J-ST
L209	172012527	L-LF-5.0-101J-ST
L212,L402	172007734	COIL,EL0606RA-101J-FT
L213,L805	172007634	COIL,EL0606RA-100J-FT
L401	171055600	COIL,OSC-BIAS (11V)
L801	173006200	COIL,EL1805-18MH
L803,L804	172022944	COIL,LHL06TB220K-FT
LC01,LE01	172007734	COIL,EL0606RA-101J-FT
LD02	177101664	CORE-BL02RN1-R2-FT
LD03,LD04	172011827	L-LF-5.0-3R3J-ST
LD06,LD07	172011827	L-LF-5.0-3R3J-ST
LD790	141014900	LED,SLR-932A
LD791,LD792	141023500	LED,SLR-981A
MD701	106012100	MODULE,TFMX5380SN
MP201	22127610	HOLDER FIP-L
MP202	22127620	HOLDER FIP-R
MP203,MP207	22127580	HOLDER (1)
MP204,MP208	22127590	HOLDER (2)
MP205	22127600	HOLDER (5)
MP206	21234760	SHIELD PLATE (DECK)
N401	1963104E0	QS-CONN-8283-02 ##
N701	191223050	WIRE M-GND
P201	198130529	POST-09FE-BT-VK-N
P701	1981299AS	POST-TVK-A28X-B1
P702,P703	1981270G2	POST-00-8283-0212-0
P801	198130722	POST-B2P3-VH

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Ref. No.	Part No.	Description
PD01,PD02	26563170	CONN
PQ790,PQ791	120013100	TRANSISTOR,SPS-1118C
PQ792,PQ793	120013100	TRANSISTOR,SPS-1118C
Q201,Q202	123245811	TRANSISTOR,2SC2458T-Y,GR
Q203,Q206	123245811	TRANSISTOR,2SC2458T-Y,GR
Q205	120002401	TRANSISTOR,DTA124EST
Q401	123195901	TRANSISTOR,2SC1959T-GR
Q790,QD03	120004601	TRANSISTOR,RN1203,TPE4
Q801	124213201	TRANSISTOR,2SD2132T-V,W
Q802	123451700	TRANSISTOR,2SC4517
Q803,Q852	123245811	TRANSISTOR,2SC2458T-Y,GR
Q851	124158101	TRANSISTOR,2SD1581T-L,M
QA01	120003201	TRANSISTOR,RN2205ST
QC01,QC02	121104811	TRANSISTOR,2SA1048T-GR
QD04	123245811	TRANSISTOR,2SC2458T-Y,GR
R200,R202	162518206	RESISTOR,CHIP,1.8KOHM 1/10W
R203,R219	162568106	RESISTOR,CHIP,680OHM 1/10W
R204,R205	162539106	RESISTOR,CHIP,390OHM 1/10W
R206,R215	162522206	RESISTOR,CHIP,2.2KOHM 1/10W
R207,R226	162582106	RESISTOR,CHIP,820OHM 1/10W
R208,R212	162510206	RESISTOR,CHIP,1KOHM 1/10W
R209,R210	162556106	RESISTOR,CHIP,560OHM 1/10W
R211,R707	162512206	RESISTOR,CHIP,1.2KOHM 1/10W
R214,R418	162539206	RESISTOR,CHIP,3.9KOHM 1/10W
R216,R706	162515206	RESISTOR,CHIP,1.5KOHM 1/10W
R217,R713	162547206	RESISTOR,CHIP,4.7KOHM 1/10W
R218,R409	162522206	RESISTOR,CHIP,2.2KOHM 1/10W
R220,R408	162527206	RESISTOR,CHIP,2.7KOHM 1/10W
R221,R422	162500006	RESISTOR,CHIP,0OHM 1/10W
R222	165282306	RESISTOR,CHIP,82KOHM 1/10W
R223,R405	162510206	RESISTOR,CHIP,1KOHM 1/10W
R224	165218206	RESISTOR,CHIP,1.8KOHM 1/10W
R225,R407	162582206	RESISTOR,CHIP,8.2KOHM 1/10W
R227	165268106	RESISTOR,CHIP,680OHM 1/10W
R228,R229	162510306	RESISTOR,CHIP,10KOHM 1/10W
R230,R709	162510306	RESISTOR,CHIP,10KOHM 1/10W
R231,R727	162547306	RESISTOR,CHIP,47KOHM 1/10W
R255	165256106	RESISTOR,CHIP,560OHM 1/10W
R401,R416	162518106	RESISTOR,CHIP,180OHM 1/10W
R402,R715	162533406	RESISTOR,CHIP,330KOHM 1/10W
R403,R756	162512306	RESISTOR,CHIP,12KOHM 1/10W
R406	165218506	RESISTOR,CHIP,1800.0KOHM 1/10W
R410,R812	162527206	RESISTOR,CHIP,2.7KOHM 1/10W
R411,R419	162522206	RESISTOR,CHIP,2.2KOHM 1/10W
R412	165227306	RESISTOR,CHIP,27KOHM 1/10W
R413,RD22	162515306	RESISTOR,CHIP,15KOHM 1/10W

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Ref. No.	Part No.	Description
R414,R420	162547006	RESISTOR,CHIP,47OHM 1/10W
R415	16524R706	RESISTOR,CHIP,4.7OHM 1/10W
R417,R704	162533206	RESISTOR,CHIP,3.3KOHM 1/10W
R421,RD08	162510106	RESISTOR,CHIP,100OHM 1/10W
R423,R759	162510206	RESISTOR,CHIP,1KOHM 1/10W
R424	165215406	RESISTOR,CHIP,150KOHM 1/10W
R601,R602	161310004	RESISTOR,CARBON,10OHM 1/6W
R603,R858	161310004	RESISTOR,CARBON,10OHM 1/6W
R705,R710	162522206	RESISTOR,CHIP,2.2KOHM 1/10W
R711,R732	162510306	RESISTOR,CHIP,10KOHM 1/10W
R714,R760	162522206	RESISTOR,CHIP,2.2KOHM 1/10W
R716,R717	162547206	RESISTOR,CHIP,4.7KOHM 1/10W
R718,R719	162547206	RESISTOR,CHIP,4.7KOHM 1/10W
R720,R730	162547206	RESISTOR,CHIP,4.7KOHM 1/10W
R721	165256306	RESISTOR,CHIP,56KOHM 1/10W
R722	165212406	RESISTOR,CHIP,120KOHM 1/10W
R723,R793	162556206	RESISTOR,CHIP,5.6KOHM 1/10W
R724	165233206	RESISTOR,CHIP,3.3KOHM 1/10W
R726,R729	162522306	RESISTOR,CHIP,22KOHM 1/10W
R728,R733	162547306	RESISTOR,CHIP,47KOHM 1/10W
R731	165239306	RESISTOR,CHIP,39KOHM 1/10W
R734,R739	162547306	RESISTOR,CHIP,47KOHM 1/10W
R735	165282206	RESISTOR,CHIP,8.2KOHM 1/10W
R737,R740	162510306	RESISTOR,CHIP,10KOHM 1/10W
R743,R881	162547306	RESISTOR,CHIP,47KOHM 1/10W
R750,R785	162547206	RESISTOR,CHIP,4.7KOHM 1/10W
R751,R811	162539206	RESISTOR,CHIP,3.9KOHM 1/10W
R752,RC06	162510406	RESISTOR,CHIP,100KOHM 1/10W
R753,R754	162510306	RESISTOR,CHIP,10KOHM 1/10W
R755,R781	162510306	RESISTOR,CHIP,10KOHM 1/10W
R757	165233106	RESISTOR,CHIP,330OHM 1/10W
R758	165233406	RESISTOR,CHIP,330KOHM 1/10W
R761,R770	162510206	RESISTOR,CHIP,1KOHM 1/10W
R782,R784	162510306	RESISTOR,CHIP,10KOHM 1/10W
R786,R850	162547206	RESISTOR,CHIP,4.7KOHM 1/10W
R790,R792	162556406	RESISTOR,CHIP,560KOHM 1/10W
R791,R796	162518006	RESISTOR,CHIP,18OHM 1/10W
R794,R798	162547006	RESISTOR,CHIP,47OHM 1/10W
R795,RA01	162556206	RESISTOR,CHIP,5.6KOHM 1/10W
R797	165218006	RESISTOR,CHIP,18OHM 1/10W
R802	16C34R71A	RESISTOR4.7OHM 3W
R803,R804	161382304	RESISTOR,CARBON,82KOHM 1/6W
R805,R806	161382304	RESISTOR,CARBON,82KOHM 1/6W
R807,R808	161368304	RESISTOR,CARBON,68KOHM 1/6W
R809	16428230A	RESISTOR,OXIDE METAL FILM,82KOHM 2W
R810	16411210A	RESISTOR,OXIDE METAL FILM,120OHM 1W

PC BOARD ASS'Y(MAIN) 35N7510/36E3310

Ref. No.	Part No.	Description
R813	165247106	RESISTOR,CHIP,470OHM 1/10W
R814	16311R20A	RESISTOR,METAL FILM,1.2OHM 1/2W
R820,R821	161368304	RESISTOR,CARBON,68KOHM 1/6W
R824,R883	162510206	RESISTOR,CHIP,1KOHM 1/10W
R832,R833	161315204	RESISTOR,CARBON,1.5KOHM 1/6W
R834,R836	161382104	RESISTOR,CARBON,820OHM 1/6W
R852,R853	162547206	RESISTOR,CHIP,4.7KOHM 1/10W
R854	165218306	RESISTOR,CHIP,18KOHM 1/10W
R856,R857	162547006	RESISTOR,CHIP,47OHM 1/10W
R859,RD17	162510306	RESISTOR,CHIP,10KOHM 1/10W
R880	165222306	RESISTOR,CHIP,22KOHM 1/10W
R882	165222106	RESISTOR,CHIP,220OHM 1/10W
R884	165C30206	RESISTOR,CHIP,2KOHM 1/10W
R885	165C20206	RESISTOR,CHIP,2KOHM 1/10W
R886	165282106	RESISTOR,CHIP,820OHM 1/10W
R887	165247006	RESISTOR,CHIP,47OHM 1/10W
RA02,RC04	162522206	RESISTOR,CHIP,2.2KOHM 1/10W
RA03	165200006	RESISTOR,CHIP,0OHM 1/10W
RA05,RD20	162547206	RESISTOR,CHIP,4.7KOHM 1/10W
RC01	161233108	RESISTOR,CARBON,330OHM 1/4W
RC05,RD25	162522206	RESISTOR,CHIP,2.2KOHM 1/10W
RD09,RD29	162510106	RESISTOR,CHIP,100OHM 1/10W
RD10,RD11	162575006	RESISTOR,CHIP,75OHM 1/10W
RD12	165275006	RESISTOR,CHIP,75OHM 1/10W
RD13	165282006	RESISTOR,CHIP,82OHM 1/10W
RD14,RD15	162510206	RESISTOR,CHIP,1KOHM 1/10W
RD18	165210206	RESISTOR,CHIP,1KOHM 1/10W
RD21	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
RD23	165215306	RESISTOR,CHIP,15KOHM 1/10W
RD24,RD30	162510306	RESISTOR,CHIP,10KOHM 1/10W
RE01	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
RE02	165210506	RESISTOR,CHIP,1MOHM 1/10W
RE03,RE05	162582406	RESISTOR,CHIP,820KOHM 1/10W
RE04	165256206	RESISTOR,CHIP,5.6KOHM 1/10W
RE06	165210106	RESISTOR,CHIP,100OHM 1/10W
RE07	165210406	RESISTOR,CHIP,100KOHM 1/10W
RE10	165210306	RESISTOR,CHIP,10KOHM 1/10W
SW701,SW7A5	23A11520	SWITCH SOR-142HS
SW790,SW791	23M10070	LEAF SW 10480 MLB0
SW7A6,SW7A7	23A11520	SWITCH SOR-142HS
SWA01	23D11190	SLIDE SW SSAA11
T801	174401080	TRANSFORMER,SWT-ZTS2714V
Z801	26GA022	MINI FUSE T1.6A250V
	21144810	HEATSINK
	2953308A	DPBB-3X8SSA

PC BOARD ASS'Y(MAIN) 35N7210/36E3010

Ref. No.	Part No.	Description
C201,C219	157F3910E	CAPACITOR,CHIP,390PF 50V
C202,C217	15781810E	CAPACITOR,CHIP,180PF 50V
C203	15715600E	CAPACITOR,CHIP,56PF 50V
C204,C209	15712200E	CAPACITOR,CHIP,22PF 50V
C205,C212	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C206	15717R00E	CAPACITOR,CHIP,7PF 50V
C207	15711200E	CAPACITOR,CHIP,12PF 50V
C210,C240	15711010E	CAPACITOR,CHIP,100PF 50V
C211	15785610E	CAPACITOR,CHIP,560PF 50V
C213,C258	15714700E	CAPACITOR,CHIP,47PF 50V
C215,C235	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C216,C218	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C220,CC10	15713300E	CAPACITOR,CHIP,33PF 50V
C221,C223	157C2230E	CI-2125F223Z25-CT
C222,C227	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C225,C230	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C226,C229	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
C228,C233	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C231,C232	157C2230E	CI-2125F223Z25-CT
C234,C601	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C236,C254	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C237,C241	157C2230E	CI-2125F223Z25-CT
C238,C242	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C239,C404	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C243,C247	157A4730E	CAPACITOR,CHIP,0.047UF 25V
C244,C245	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C246,C403	157A1030E	CAPACITOR,CHIP,0.01UF 25V
C248,C758	157C2230E	CI-2125F223Z25-CT
C249,C411	157A4730E	CAPACITOR,CHIP,0.047UF 25V
C250,C755	15711010E	CAPACITOR,CHIP,100PF 50V
C253	15781210E	CAPACITOR,CHIP,120PF 50V
C255,C259	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C260,C418	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C263	157C1050E	CAPACITOR,CHIP,1UF 16V
C401,C412	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C402,C419	155347625	CE-SSM47M16-FT
C405,C409	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C406,C851	155633525	CAPACITOR,ELECTROLYTIC,3.3UF 50V
C408	155447525	CAPACITOR,ELECTROLYTIC,4.7UF 25V
C410,C417	157A1030E	CAPACITOR,CHIP,0.01UF 25V
C413,C602	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C414,C810	157F8220E	CAPACITOR,CHIP,8200PF 50V
C416	157A2220E	CAPACITOR,CHIP,2200PF 50V
C420	153C47305	CAPACITOR,MYLAR,0.047UF 100V
C421,CD45	155347625	CE-SSM47M16-FT
C422,C756	155647425	CAPACITOR,ELECTROLYTIC,0.47UF 50V

PC BOARD ASS'Y(MAIN) 35N7210/36E3010

Ref. No.	Part No.	Description
C423,C713	157A3320E	CAPACITOR,CHIP,3300PF 50V
C424	155310725	CAPACITOR,ELECTROLYTIC,100UF 16V
C426	157A6810E	CAPACITOR,CHIP,680PF 50V
C427,CC02	15714700E	CAPACITOR,CHIP,47PF 50V
C701,C711	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C702	1552227G5	CAPACITOR,ELECTROLYTIC,220UF 10V
C703,C721	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C704	155322625	CAPACITOR,ELECTROLYTIC,22UF 16V
C705,C716	157A1030E	CAPACITOR,CHIP,0.01UF 25V
C706,C707	15712200E	CAPACITOR,CHIP,22PF 50V
C708,C709	15712200E	CAPACITOR,CHIP,22PF 50V
C710	1507015C5	CAPACITOR,SUPER,DFM479Z5T
C712,C720	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C714,C765	157A1020E	CAPACITOR,CHIP,1000PF 50V
C715,C809	157A3320E	CAPACITOR,CHIP,3300PF 50V
C719,CD40	15784710E	CAPACITOR,CHIP,470PF 50V
C722,CC12	157B1040E	CAPACITOR,CHIP,0.1UF 25V
C753,C768	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C754,C759	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C761,CA09	15711010E	CAPACITOR,CHIP,100PF 50V
C762,C763	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C766,C769	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
C767,CD11	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
C775,CC03	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C783,CA02	157C2230E	CI-2125F223Z25-CT
C801	150907300	CC-PA104L250
C802	150908210	CC-KC472M250
C805	150908610	CC-KD332M250
C806	155K476G0	CAPACITOR,ELECTROLYTIC,47UF 400V
C807	150907710	CC-B103K500
C808	150908015	CC-SL560J1000-FT
C811	157A2730E	CAPACITOR,CHIP,0.027UF 25V
C812	157A2230E	CAPACITOR,CHIP,0.022UF 25V
C813	157A3330E	CAPACITOR,CHIP,0.033UF 25V
C817,C818	1553477M5	CAPACITOR,ELECTROLYTIC,470UF 16V
C819	1556226G5	CAPACITOR,ELECTROLYTIC,22UF 50V
C820,C852	1553477M5	CAPACITOR,ELECTROLYTIC,470UF 16V
C821	1553108M4	CAPACITOR,ELECTROLYTIC,1000UF 16V
C822,CD21	1553107G5	CAPACITOR,ELECTROLYTIC,100UF 16V
C850,CD12	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C853	155647425	CAPACITOR,ELECTROLYTIC,0.47UF 50V
CA01,CA03	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
CA04,CD04	1553477M5	CAPACITOR,ELECTROLYTIC,470UF 16V
CA06,CC07	157C2230E	CI-2125F223Z25-CT
CA07,CC06	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
CA08	157F8220E	CAPACITOR,CHIP,8200PF 50V

PC BOARD ASS'Y(MAIN) 35N7210/36E3010

Ref. No.	Part No.	Description
CA10	15711010E	CAPACITOR,CHIP,100PF 50V
CC04	157F3910E	CAPACITOR,CHIP,390PF 50V
CC08,CC09	15712200E	CAPACITOR,CHIP,22PF 50V
CC11	15712200E	CAPACITOR,CHIP,22PF 50V
CD13,CD14	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD15,CD17	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD16	157B1040E	CAPACITOR,CHIP,0.1UF 25V
CD19,CD20	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD22,CD25	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD24	1553477M5	CAPACITOR,ELECTROLYTIC,470UF 16V
CD26,CD27	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD28	155310625	CAPACITOR,ELECTROLYTIC,10UF 16V
CD29	157A1530E	CAPACITOR,CHIP,0.015UF 25V
CD30,CD31	157A1020E	CAPACITOR,CHIP,1000PF 50V
CD32,CD34	157A1020E	CAPACITOR,CHIP,1000PF 50V
CD36	157A1020E	CAPACITOR,CHIP,1000PF 50V
CD39,CD41	157A1520E	CAPACITOR,CHIP,1500PF 50V
CD42	15784710E	CAPACITOR,CHIP,470PF 50V
CD43	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16V
D201,D202	131002101	DIODE,1SS254T
D204,D402	131002101	DIODE,1SS254T
D701,D702	131002101	DIODE,1SS254T
D801,D802	132014201	DIODE,1A5T
D803,D804	132014201	DIODE,1A5T
D805	132014606	DIODE,EG01C-FT
D806,D807	131002101	DIODE,1SS254T
D808,D810	131003001	DIODE,1SS244T
D809	132013508	DIODE,RU2YX-PF
D811	132013709	DIODE,AK03-RT
D812,D821	131003001	DIODE,1SS244T
D815,D822	131002101	DIODE,1SS254T
D816	132014101	DIODE,1A4T
D819	134015131	DIODE,ZENER,MTZJ6.8T-B
D820	134015021	DIODE,ZENER,MTZJ6.2T-B
D823	134014721	DIODE,ZENER,MTZJ10T-C
D830,D831	131002101	DIODE,1SS254T
D850	134019511	DIODE,ZENER,MTZJ33T-A,B
D852,D853	131002101	DIODE,1SS254T
D854	134016621	DIODE,ZENER,MTZJ11T-A
D880	131002101	DIODE,1SS254T
ETA01	104305750	ELECTRONIC TUNER,ENG57510G
F201	1764139B0	X'TAL,HC49U-4.433619MHZ
F701	1764134B0	X'TAL,HC-49U-S12.00MHZ
F702	176300500	X'TAL,32.768KHZ-10PPM
FC01	1764084C0	X'TAL,HC-49U17.734475MHZ
FH801,FH802	26N20110	FUSE HOLDER CNT47

PC BOARD ASS'Y(MAIN) 35N7210/36E3010

Ref. No.	Part No.	Description
H701	143002000	FIP,7-MT-183G
IC201	111729300	IC,LA7437
IC203	112285300	IC,LC89970
IC401	111717300	IC,LA7286
IC601	111718200	IC,TA7291S
IC701	119327400	IC,CXP88140-138Q
IC702	111721507	IC,PST9129T-RT
IC704	113112B00	IC,AT24C02
(*The IC ROM settings vary for each model, so please specify the model you are using when ordering replacement IC-ROM 704 parts.)		
IC750	111380300	IC,LA7116
IC801	145300900	PHOTOCOUPLER,PS2561-1-MDHW-V
IC802	111719207	IC,TA76431S-RT
ICC01	119304300	IC,LC74781-XXXX
ICD02	111731300	IC,LA7156
J401,J409	198302901	JUMPER 20MM(INSERT)
J402,J403	198302101	JUMPER 15MM (INSERT)
J404,J417	198300101	JUMPER 5MM (INSERT)
J405,J414	198302001	JUMPER 12.5MM (INS)
J406,J407	198301901	JUMPER 10MM (INSERT)
J408,J411	198301901	JUMPER 10MM (INSERT)
J410,J412	198301801	JUMPER 7.5MM(INSERT)
J413,J420	198302201	JUMPER 17.5MM(INS)
J415,J425	198301901	JUMPER 10MM (INSERT)
J416,J429	198301801	JUMPER 7.5MM(INSERT)
J418,J427	198302901	JUMPER 20MM(INSERT)
J419,J422	198302001	JUMPER 12.5MM (INS)
J421,J475	198300101	JUMPER 5MM (INSERT)
J423,J426	198302101	JUMPER 15MM (INSERT)
J424,J447	198302201	JUMPER 17.5MM(INS)
J428,J436	198302001	JUMPER 12.5MM (INS)
J430,J435	198302101	JUMPER 15MM (INSERT)
J431,J432	198301901	JUMPER 10MM (INSERT)
J433,J434	198301801	JUMPER 7.5MM(INSERT)
J438,J439	198302901	JUMPER 20MM(INSERT)
J440,J444	198303101	JUMPER 25MM (INSERT)
J443,J449	198302901	JUMPER 20MM(INSERT)
J445,J450	198301901	JUMPER 10MM (INSERT)
J446,J448	198302001	JUMPER 12.5MM (INS)
J451,J452	198302001	JUMPER 12.5MM (INS)
J453,J454	198302101	JUMPER 15MM (INSERT)
J455,J456	198301901	JUMPER 10MM (INSERT)
J457,J476	198303101	JUMPER 25MM (INSERT)
J458,J481	198302901	JUMPER 20MM(INSERT)
J459,J460	198302201	JUMPER 17.5MM(INS)
J462,J490	198301801	JUMPER 7.5MM(INSERT)
J465,J466	198302001	JUMPER 12.5MM (INS)

PC BOARD ASS'Y(MAIN) 35N7210/36E3010

Ref. No.	Part No.	Description
J467,J468	198301901	JUMPER 10MM (INSERT)
J469,J508	198302201	JUMPER 17.5MM(INS)
J470,J472	198301901	JUMPER 10MM (INSERT)
J473,J480	198302001	JUMPER 12.5MM (INS)
J477,J478	198303101	JUMPER 25MM (INSERT)
J479,J486	198302101	JUMPER 15MM (INSERT)
J482,J483	198302001	JUMPER 12.5MM (INS)
J484,J485	198302901	JUMPER 20MM(INSERT)
J487,J489	198301901	JUMPER 10MM (INSERT)
J488,J496	198302101	JUMPER 15MM (INSERT)
J491,J506	198302001	JUMPER 12.5MM (INS)
J492,J494	198300101	JUMPER 5MM (INSERT)
J495,J527	198301801	JUMPER 7.5MM(INSERT)
J497,J498	198301901	JUMPER 10MM (INSERT)
J499,J504	198301901	JUMPER 10MM (INSERT)
J501,J502	198302901	JUMPER 20MM(INSERT)
J503,J505	198302901	JUMPER 20MM(INSERT)
J507,J519	198300101	JUMPER 5MM (INSERT)
J509,J520	198301901	JUMPER 10MM (INSERT)
J510,J521	198302901	JUMPER 20MM(INSERT)
J511,J514	198302201	JUMPER 17.5MM(INS)
J512,J513	198302101	JUMPER 15MM (INSERT)
J515,J516	198302101	JUMPER 15MM (INSERT)
J517,J518	198302101	JUMPER 15MM (INSERT)
J522,J524	198302901	JUMPER 20MM(INSERT)
J523,J526	198301901	JUMPER 10MM (INSERT)
J525,J548	198302901	JUMPER 20MM(INSERT)
J528,J554	198302001	JUMPER 12.5MM (INS)
J529,J530	198301901	JUMPER 10MM (INSERT)
J531,J537	198300101	JUMPER 5MM (INSERT)
J532,J539	198301801	JUMPER 7.5MM(INSERT)
J535,J549	198302101	JUMPER 15MM (INSERT)
J536,J547	198301901	JUMPER 10MM (INSERT)
J541,J543	198301801	JUMPER 7.5MM(INSERT)
J544,J546	198301801	JUMPER 7.5MM(INSERT)
J545,J557	198302201	JUMPER 17.5MM(INS)
J550	198303101	JUMPER 25MM (INSERT)
J551,J553	198301801	JUMPER 7.5MM(INSERT)
J555,J560	198301901	JUMPER 10MM (INSERT)
J556,J574	198301801	JUMPER 7.5MM(INSERT)
J558,J572	198302901	JUMPER 20MM(INSERT)
J561,J566	198301901	JUMPER 10MM (INSERT)
J562,J564	198302001	JUMPER 12.5MM (INS)
J563,J570	198302201	JUMPER 17.5MM(INS)
J567,J568	198301901	JUMPER 10MM (INSERT)
J569,J575	198300101	JUMPER 5MM (INSERT)

PC BOARD ASS'Y(MAIN) 35N7210/36E3010

Ref. No.	Part No.	Description
J571,J576	198302001	JUMPER 12.5MM (INS)
J573,J577	198301901	JUMPER 10MM (INSERT)
J578,J589	198301801	JUMPER 7.5MM(INSERT)
J579,J581	198302101	JUMPER 15MM (INSERT)
J583,J585	198302001	JUMPER 12.5MM (INS)
J584,J600	198300101	JUMPER 5MM (INSERT)
J586,J587	198301901	JUMPER 10MM (INSERT)
J588,J593	198302001	JUMPER 12.5MM (INS)
J594	198302101	JUMPER 15MM (INSERT)
J596,J597	198301901	JUMPER 10MM (INSERT)
J605,J608	198300101	JUMPER 5MM (INSERT)
L201	172015627	L-LF-5.0-181J-ST
L203,LC02	172012327	L-LF-5.0-330J-ST
L204	172015427	L-LF-5.0-820J-ST
L205,L214	172012227	L-LF-5.0-470J-ST
L206,L211	172019427	COIL,LF-5.0-390J-ST
L207	172012127	L-LF-5.0-100J-ST
L209	172012527	L-LF-5.0-101J-ST
L212,L402	172007734	COIL,EL0606RA-101J-FT
L213,L805	172007634	COIL,EL0606RA-100J-FT
L401	171055600	COIL,OSC-BIAS (11V)
L801	173006200	COIL,EL1805-18MH
L803,L804	172022944	COIL,LHL06TB220K-FT
LC01	172007734	COIL,EL0606RA-101J-FT
LD02	177101664	CORE-BL02RN1-R2-FT
LD03,LD04	172011827	L-LF-5.0-3R3J-ST
LD06,LD07	172011827	L-LF-5.0-3R3J-ST
LD790	141014900	LED,SLR-932A
LD791,LD792	141023500	LED,SLR-981A
MD701	106012100	MODULE,TFMX5380SN
MP201	22127610	HOLDER FIP-L
MP202	22127620	HOLDER FIP-R
MP203,MP207	22127580	HOLDER (1)
MP204,MP208	22127590	HOLDER (2)
MP205	22127600	HOLDER (5)
MP206	21234760	SHIELD PLATE (DECK)
N401	1963104E0	QS-CONN-8283-02 ##
N701	191223050	WIRE M-GND
P201	198130529	POST-09FE-BT-VK-N
P701	1981299AS	POST-TVK-A28X-B1
P702,P703	1981270G2	POST-00-8283-0212-0
P801	198130722	POST-B2P3-VH
PD01,PD02	26563170	CONN
PQ790,PQ791	120013100	TRANSISTOR,SPS-1118C
PQ792,PQ793	120013100	TRANSISTOR,SPS-1118C
Q201,Q202	123245811	TRANSISTOR,2SC2458T-Y,GR

PC BOARD ASS'Y(MAIN) 35N7210/36E3010

Ref. No.	Part No.	Description
Q203,Q206	123245811	TRANSISTOR,2SC2458T-Y,GR
Q205	120002401	TRANSISTOR,DTA124EST
Q401	123195901	TRANSISTOR,2SC1959T-GR
Q790,QD03	120004601	TRANSISTOR,RN1203,TPE4
Q801	124213201	TRANSISTOR,2SD2132T-V,W
Q802	123451700	TRANSISTOR,2SC4517
Q803,Q852	123245811	TRANSISTOR,2SC2458T-Y,GR
Q851	124158101	TRANSISTOR,2SD1581T-L,M
QA01	120003201	TRANSISTOR,RN2205ST
QC01,QC02	121104811	TRANSISTOR,2SA1048T-GR
QD04	123245811	TRANSISTOR,2SC2458T-Y,GR
R200,R202	165218206	RESISTOR,CHIP,1.8KOHM 1/10W
R203,R219	165268106	RESISTOR,CHIP,680OHM 1/10W
R204,R205	165239106	RESISTOR,CHIP,390OHM 1/10W
R206,R215	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
R207,R226	165282106	RESISTOR,CHIP,820OHM 1/10W
R208,R212	165210206	RESISTOR,CHIP,1KOHM 1/10W
R209,R210	165256106	RESISTOR,CHIP,560OHM 1/10W
R211,R707	165212206	RESISTOR,CHIP,1.2KOHM 1/10W
R214,R418	165239206	RESISTOR,CHIP,3.9KOHM 1/10W
R216,R706	165215206	RESISTOR,CHIP,1.5KOHM 1/10W
R217,R713	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R218,R409	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
R220,R408	165227206	RESISTOR,CHIP,2.7KOHM 1/10W
R221,R422	165200006	RESISTOR,CHIP,0OHM 1/10W
R222	165282306	RESISTOR,CHIP,82KOHM 1/10W
R223,R405	165210206	RESISTOR,CHIP,1KOHM 1/10W
R224	165218206	RESISTOR,CHIP,1.8KOHM 1/10W
R225,R407	165282206	RESISTOR,CHIP,8.2KOHM 1/10W
R227	165268106	RESISTOR,CHIP,680OHM 1/10W
R228,R229	165210306	RESISTOR,CHIP,10KOHM 1/10W
R230,R709	165210306	RESISTOR,CHIP,10KOHM 1/10W
R231,R727	165247306	RESISTOR,CHIP,47KOHM 1/10W
R255	165256106	RESISTOR,CHIP,560OHM 1/10W
R401,R416	165218106	RESISTOR,CHIP,180OHM 1/10W
R402,R715	165233406	RESISTOR,CHIP,330KOHM 1/10W
R403,R756	165212306	RESISTOR,CHIP,12KOHM 1/10W
R406	165218506	RESISTOR,CHIP,1800.0KOHM 1/10W
R410,R812	165227206	RESISTOR,CHIP,2.7KOHM 1/10W
R411,R419	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
R412	165227306	RESISTOR,CHIP,27KOHM 1/10W
R413,RD22	165215306	RESISTOR,CHIP,15KOHM 1/10W
R414,R420	165247006	RESISTOR,CHIP,47OHM 1/10W
R415	16524R706	RESISTOR,CHIP,4.7OHM 1/10W
R417,R704	165233206	RESISTOR,CHIP,3.3KOHM 1/10W
R421,RD08	165210106	RESISTOR,CHIP,100OHM 1/10W

PC BOARD ASS'Y(MAIN) 35N7210/36E3010

Ref. No.	Part No.	Description
R423,R759	165210206	RESISTOR,CHIP,1KOHM 1/10W
R424	165215406	RESISTOR,CHIP,150KOHM 1/10W
R601,R602	161310004	RESISTOR,CARBON,10OHM 1/6W
R603,R858	161310004	RESISTOR,CARBON,10OHM 1/6W
R705,R710	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
R711,R732	165210306	RESISTOR,CHIP,10KOHM 1/10W
R712,R752	165210406	RESISTOR,CHIP,100KOHM 1/10W
R714,R760	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
R716,R717	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R718,R719	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R720,R730	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R721	165256306	RESISTOR,CHIP,56KOHM 1/10W
R722	165212406	RESISTOR,CHIP,120KOHM 1/10W
R723,R793	165256206	RESISTOR,CHIP,5.6KOHM 1/10W
R724	165233206	RESISTOR,CHIP,3.3KOHM 1/10W
R726,R729	165222306	RESISTOR,CHIP,22KOHM 1/10W
R728,R733	165247306	RESISTOR,CHIP,47KOHM 1/10W
R731	165239306	RESISTOR,CHIP,39KOHM 1/10W
R734,R739	165247306	RESISTOR,CHIP,47KOHM 1/10W
R735	165282206	RESISTOR,CHIP,8.2KOHM 1/10W
R737,R740	165210306	RESISTOR,CHIP,10KOHM 1/10W
R743,R881	165247306	RESISTOR,CHIP,47KOHM 1/10W
R750,R785	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R751,R811	165239206	RESISTOR,CHIP,3.9KOHM 1/10W
R753,R754	165210306	RESISTOR,CHIP,10KOHM 1/10W
R755,R781	165210306	RESISTOR,CHIP,10KOHM 1/10W
R757	165233106	RESISTOR,CHIP,330OHM 1/10W
R758	165233406	RESISTOR,CHIP,330KOHM 1/10W
R761,R770	165210206	RESISTOR,CHIP,1KOHM 1/10W
R782,R784	165210306	RESISTOR,CHIP,10KOHM 1/10W
R786,R850	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R790,R792	165256406	RESISTOR,CHIP,560KOHM 1/10W
R791,R796	165218006	RESISTOR,CHIP,18OHM 1/10W
R794,R798	165247006	RESISTOR,CHIP,47OHM 1/10W
R795,RA01	165256206	RESISTOR,CHIP,5.6KOHM 1/10W
R797	165218006	RESISTOR,CHIP,18OHM 1/10W
R802	16C34R71A	RESISTOR4.7OHM 3W
R803,R804	161382304	RESISTOR,CARBON,82KOHM 1/6W
R805,R806	161382304	RESISTOR,CARBON,82KOHM 1/6W
R807,R808	161368304	RESISTOR,CARBON,68KOHM 1/6W
R809	16428230A	RESISTOR,OXIDE METAL FILM,82KOHM 2W
R810	16411210A	RESISTOR,OXIDE METAL FILM,120OHM 1W
R813	165247106	RESISTOR,CHIP,470OHM 1/10W
R814	16311R20A	RESISTOR,METAL FILM,1.2OHM 1/2W
R820,R821	161368304	RESISTOR,CARBON,68KOHM 1/6W
R824,R883	165210206	RESISTOR,CHIP,1KOHM 1/10W

PC BOARD ASS'Y(MAIN) 35N7210/36E3010

Ref. No.	Part No.	Description
R832,R833	161315204	RESISTOR,CARBON,1.5KOHM 1/6W
R834,R836	161382104	RESISTOR,CARBON,820OHM 1/6W
R852,R853	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
R854	165218306	RESISTOR,CHIP,18KOHM 1/10W
R856,R857	165247006	RESISTOR,CHIP,47OHM 1/10W
R859,RD17	165210306	RESISTOR,CHIP,10KOHM 1/10W
R880	165222306	RESISTOR,CHIP,22KOHM 1/10W
R882	165222106	RESISTOR,CHIP,220OHM 1/10W
R884	165C30206	RESISTOR,CHIP,2KOHM 1/10W
R885	165C20206	RESISTOR,CHIP,2KOHM 1/10W
R886	165282106	RESISTOR,CHIP,820OHM 1/10W
R887	165247006	RESISTOR,CHIP,47OHM 1/10W
RA02,RC04	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
RA03	165200006	RESISTOR,CHIP,0OHM 1/10W
RA05,RD20	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
RC01	161233108	RESISTOR,CARBON,330OHM 1/4W
RC05,RD25	165222206	RESISTOR,CHIP,2.2KOHM 1/10W
RC06	165210406	RESISTOR,CHIP,100KOHM 1/10W
RD09,RD29	165210106	RESISTOR,CHIP,100OHM 1/10W
RD10,RD11	165275006	RESISTOR,CHIP,75OHM 1/10W
RD12	165275006	RESISTOR,CHIP,75OHM 1/10W
RD13	165282006	RESISTOR,CHIP,82OHM 1/10W
RD14,RD15	165210206	RESISTOR,CHIP,1KOHM 1/10W
RD18	165210206	RESISTOR,CHIP,1KOHM 1/10W
RD21	165247206	RESISTOR,CHIP,4.7KOHM 1/10W
RD23	165215306	RESISTOR,CHIP,15KOHM 1/10W
RD24,RD30	165210306	RESISTOR,CHIP,10KOHM 1/10W
SW701,SW7A5	23A11520	SWITCH SOR-142HS
SW790,SW791	23M10070	LEAF SW 10480 MLB0
SW7A6,SW7A7	23A11520	SWITCH SOR-142HS
SWA01	23D11190	SLIDE SW SSAA11
T801	174401080	TRANSFORMER,SWT-ZTS2714V
Z801	26GA022	MINI FUSE T1.6A250V
	21144810	HEATSINK
	2953308A	DPBB-3X8SSA

PC BOARD ASS'Y(HEAD) 35N7140/36E2940

Ref. No.	Part No.	Description
C101	1563335B5	CAPACITOR,TANTALUM,3.3UF 16V
C102	157C2230E	CI-2125F223Z25-CT
C103	155610525	CAPACITOR,ELECTROLYTIC,1UF 50V
C110,C112	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C115,C116	157C1030E	CAPACITOR,CHIP,0.01UF 25V
C117	157C1030E	CAPACITOR,CHIP,0.01UF 25V
IC102	111714300	IC,LA7411
J103,J104	198300101	JUMPER 5MM (INSERT)
J105	198301801	JUMPER 7.5MM(INSERT)
L101	172007734	COIL,EL0606RA-101J-FT
MP101	21234740	SHIELD PLATE (HEAD)
MP102	21234751	SHIELD PLATE (B-HA)
P101	1981250G6	POST-20-8283-006
P103	198130629	POST-09FE-ST-VK-N
R101,R104	165218306	RESISTOR,CHIP,18KOHM 1/10W
R103	165218206	RESISTOR,CHIP,1.8KOHM 1/10W
R106,R107	165200006	RESISTOR,CHIP,0OHM 1/10W
R108	165200006	RESISTOR,CHIP,0OHM 1/10W
R109	165210306	RESISTOR,CHIP,10KOHM 1/10W
	180562141	PLAIN PCB HEAD WITHOUT ELECTRICAL PARTS

PC BOARD ASS'Y(SUB1) 35N5420/36E8120

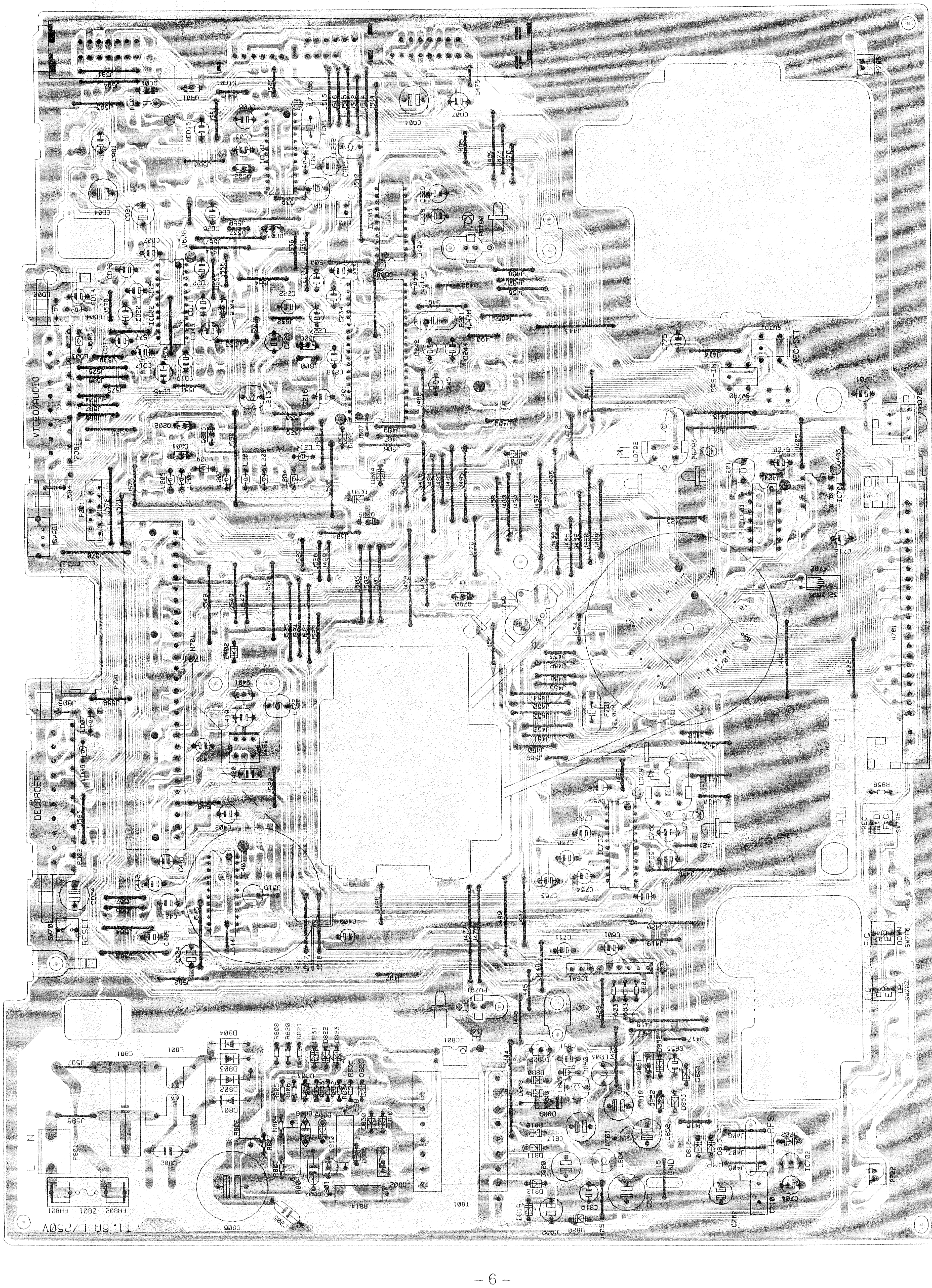
Ref. No.	Part No.	Description
PF01	1981250G2	POST-20-8283-002
RF01	165233306	RESISTOR,CHIP,33KOHM 1/10W
RF02	165210306	RESISTOR,CHIP,10KOHM 1/10W
RF03	165256206	RESISTOR,CHIP,5.6KOHM 1/10W
SWFG1, SWFG2	23A11520	SWITCH SOR-142HS
SWFG3, SWFG4	23A11520	SWITCH SOR-142HS
	180562121	PLAIN PCB SUB1 WITHOUT ELECTRICAL PARTS

PC BOARD ASS'Y(SUB2) 35N5430/36E3030

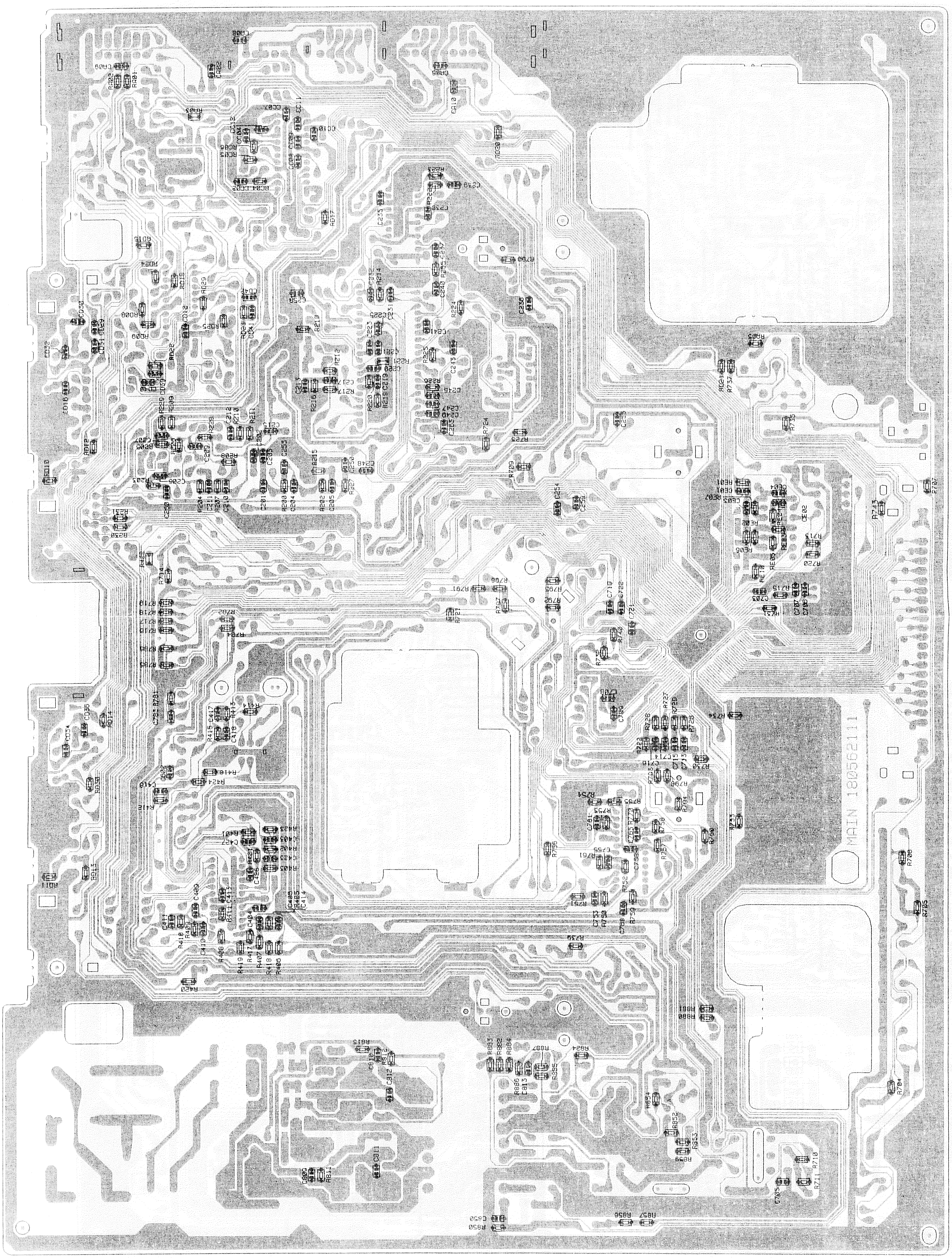
Ref. No.	Part No.	Description
PG01	1981250G2	POST-20-8283-002
SWGA8	23A11520	SWITCH SOR-142HS
	180562131	PLAIN PCB SUB2 WITHOUT ELECTRICAL PARTS

5. ELECTRICAL PARTS LOCATION (VCR 329)

PC BOARD ASS'Y (MAIN)

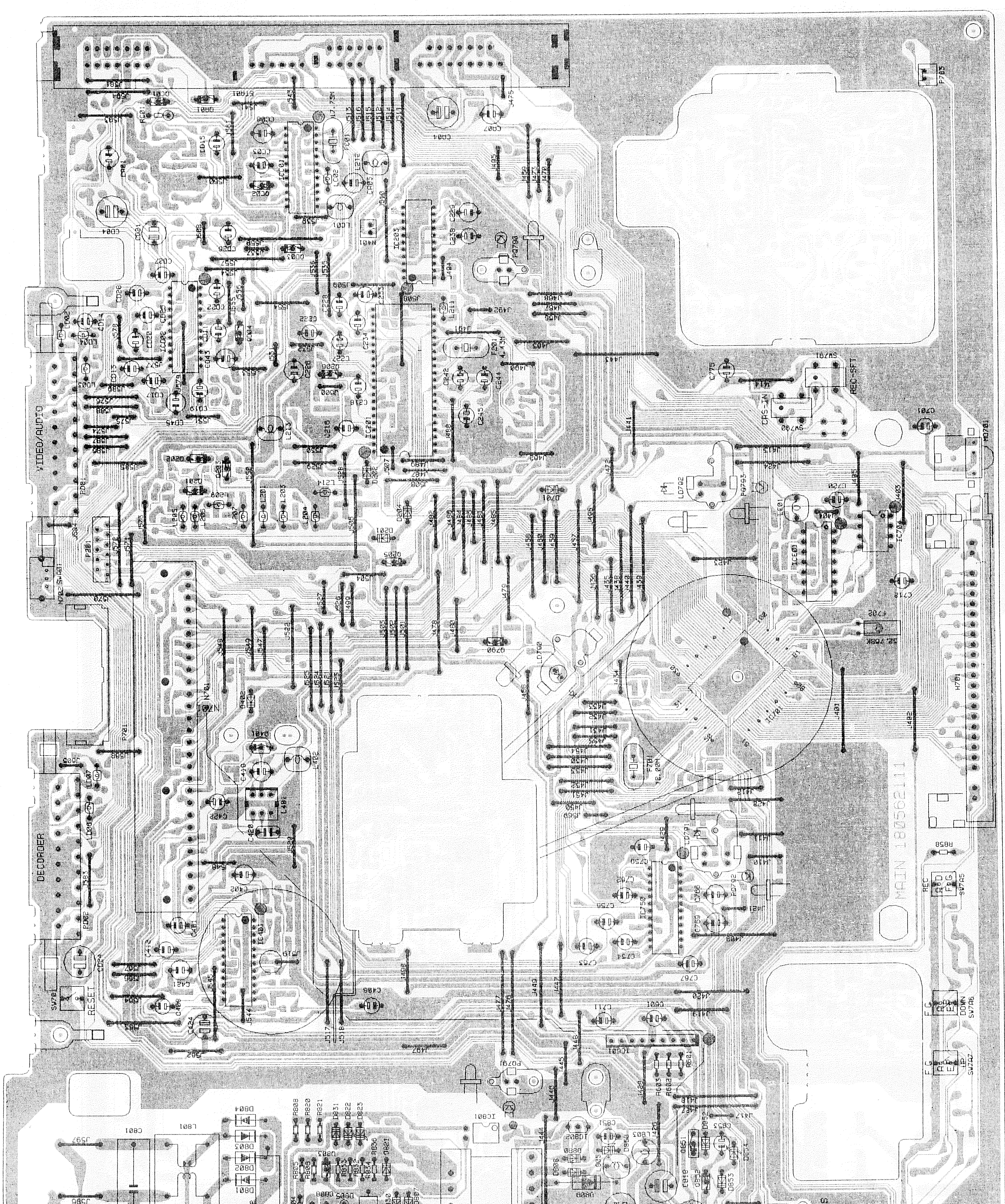

VIDEO/AUDIO
DECODER
RESET
SW701
REC-SFT
CAS-IN
MAIN 180562111
IC701
IC203
IC202
IC101
IC401
IC750
IC801
IC601
IC702
P201
P701
P702
P703
REC
F.G
DOWN
UP
CTL
GND
AMP

PC BOARD ASS'Y (MAIN)

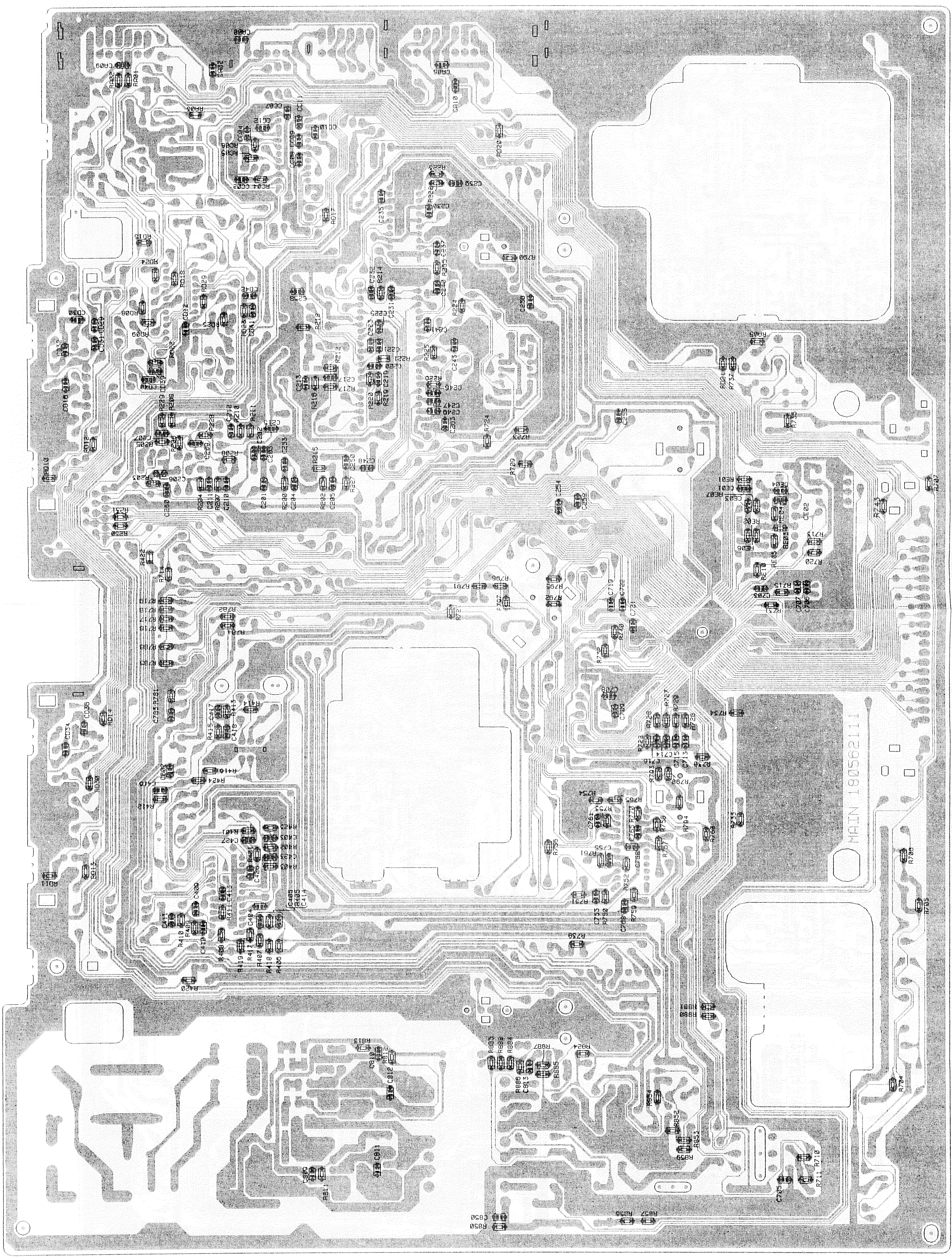

MAIN 180562111

ELECTRICAL PARTS LOCATION (VCR 330/VCR 332)

PC BOARD ASS'Y (MAIN)

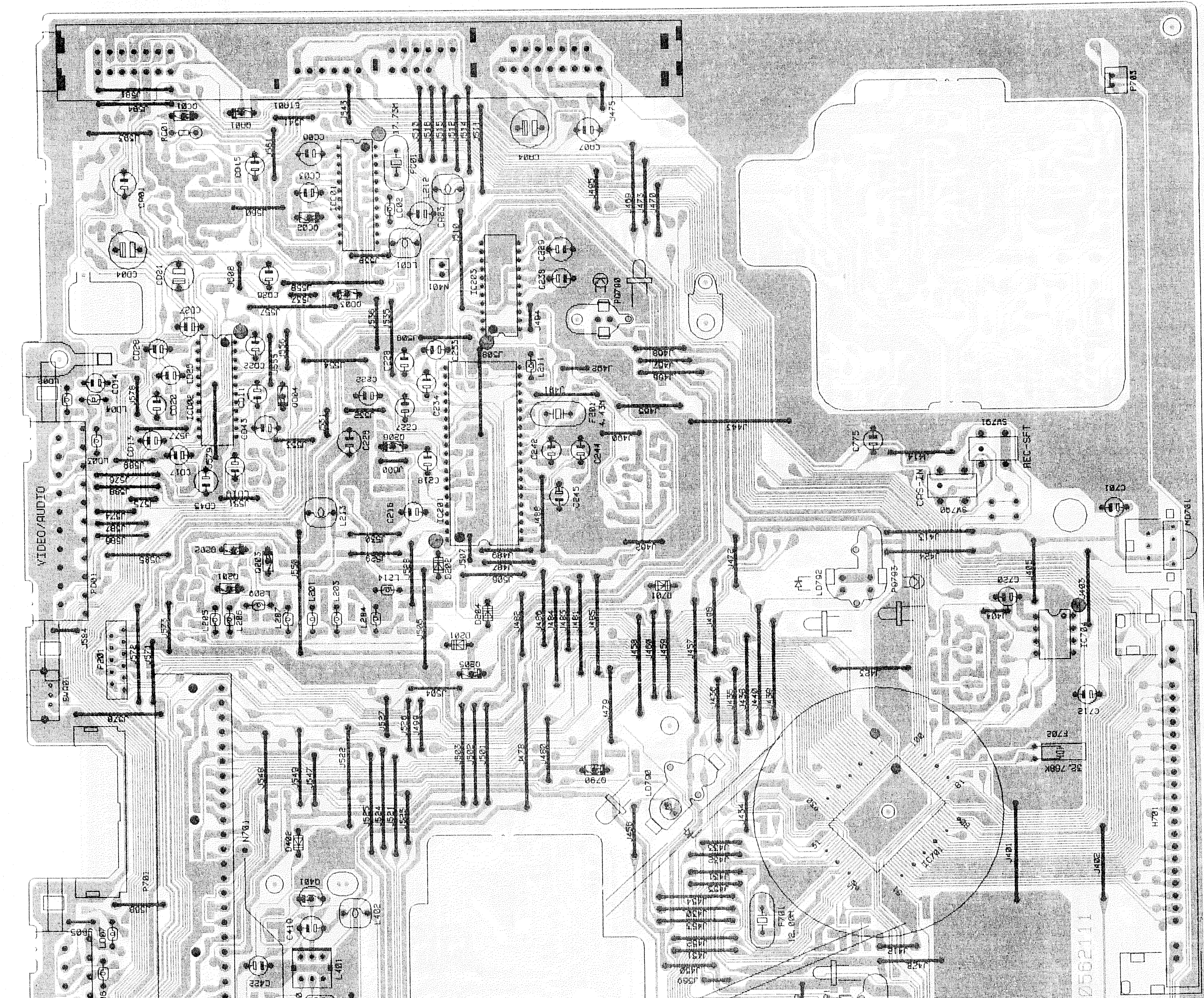

VIDEO/AUDIO
DECODER
RESET
REC-SFT
CAS-IN
REC
DOWN
UP
P703
P702
IC203
IC701
IC750
IC702
MAIN

PC BOARD ASS'Y (MAIN)

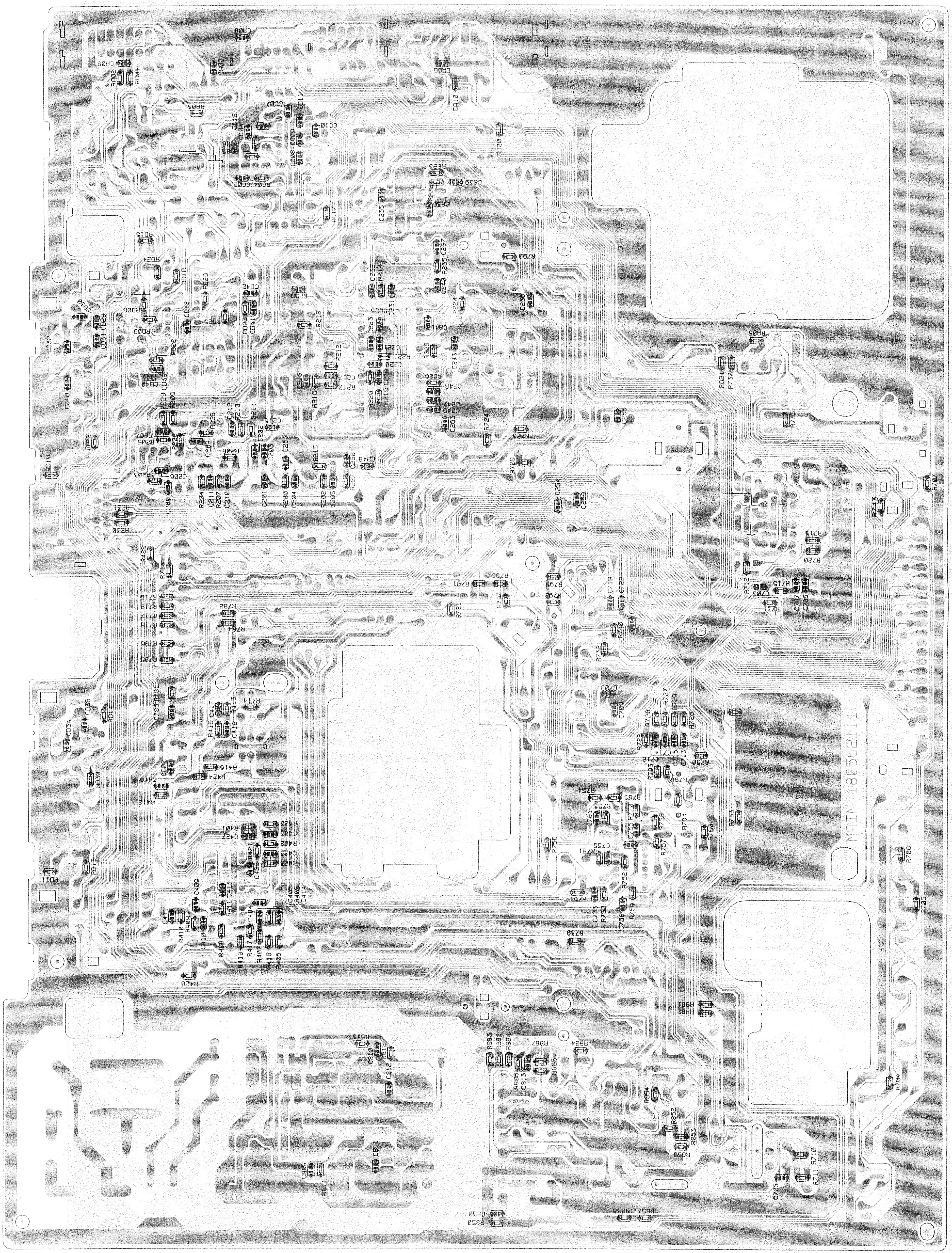

MAIN 180562111

ELECTRICAL PARTS LOCATION (VCR 331)

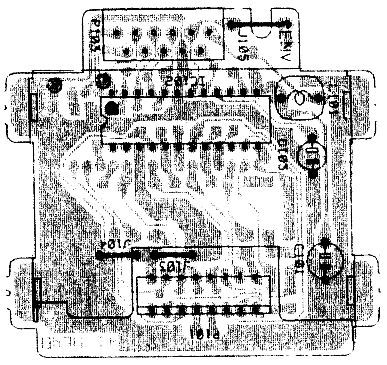
PC BOARD ASS'Y (MAIN)

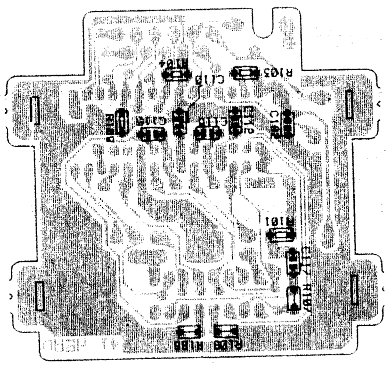

VIDEO/AUDIO
DECORDER
RESET
REC-SFT
MAIN 180562111
T1.6A L/250V
GND
AMP

PC BOARD ASS'Y (MAIN)

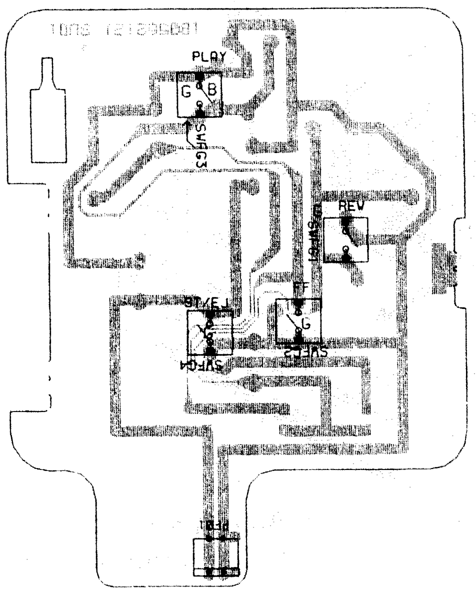

MAIN 180562111

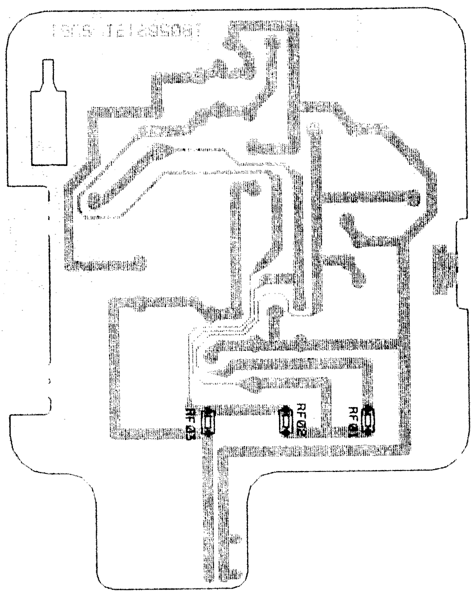
PC BOARD ASS'Y (HEAD)


P103
J105
ENV
IC102
L101
D103
J104
J103
C101
P101

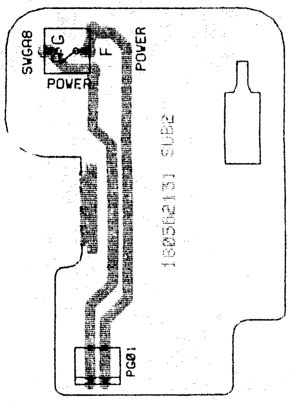

R104
C110
R105
C112
C102
R101
C117
R107
R108

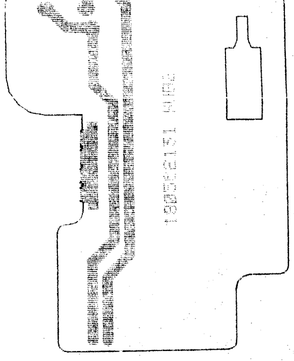
PC BOARD ASS'Y (SUB1)


PLAY
G
B
SWFG3
REV
SWFG1
FF
G
SWFG2
BT/EJ
SWFG4
PF01


RF03
RF02
RF01

PC BOARD ASS'Y (SUB2)


SWGA8
G
F
POWER
POWER
18056131 SUB2
PG01



6. REMOVAL OF THE DECK MECHANISM

6-1. REMOVING THE TOP COVER AND FP ASSY

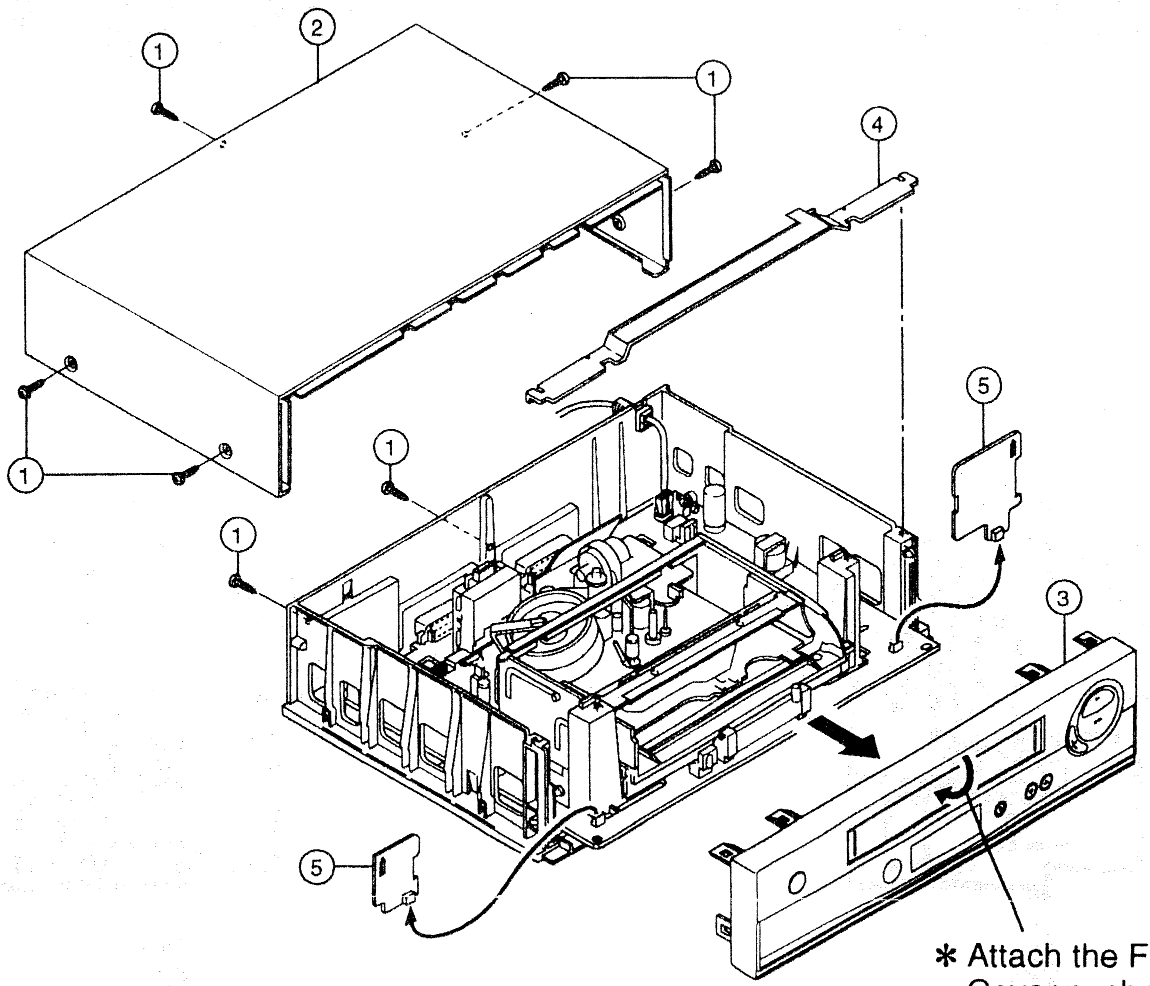
① Remove the seven screws.

② Remove the Top Cover.

③ Remove the FP Assy, held in position by the eight prongs, the direction of arrow.

④ Remove the Bracket.

⑤ Remove the Sub PCB, if one is attached, from the Main PCB.



* Attach the Face Plate with the Dust Cover pushed open.

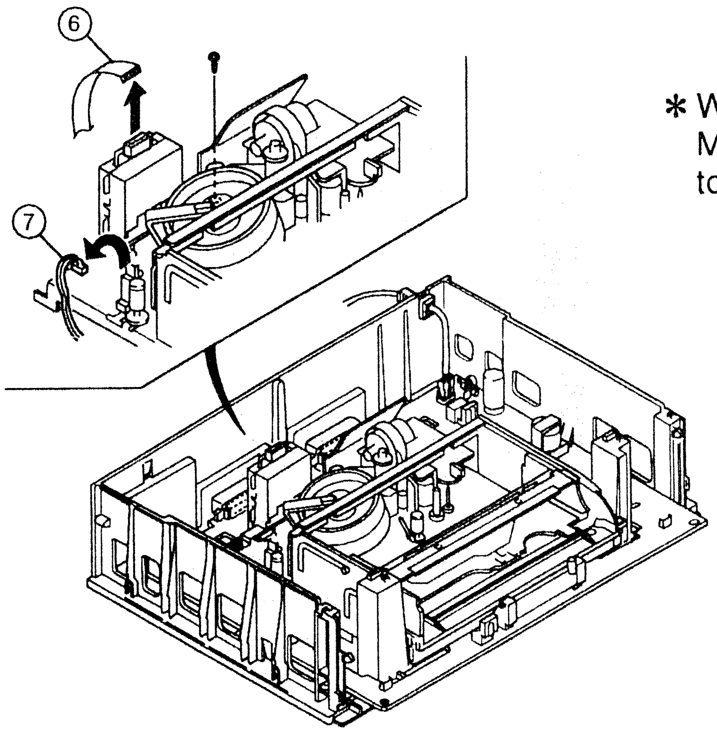
6-2. REMOVING THE DECK MECHANISM

⑥ Disconnect the Flexible Wire 9P (N201) from the Head Amp Unit.

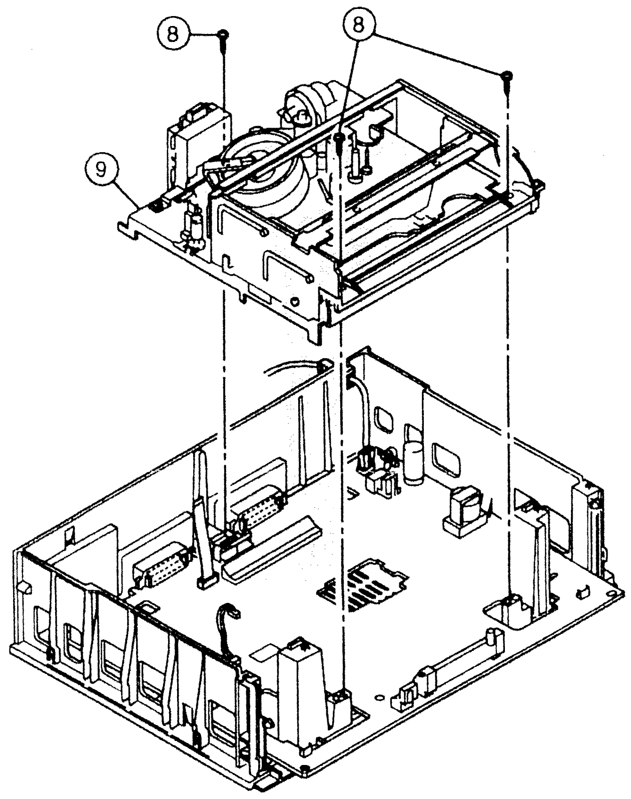
⑦ Disconnect the Connector (N401) from the Deck Mechanism.

⑧ Remove three screws.

⑨ Remove the Deck Mechanism.



* When handling the Deck Mechanism, take care not to touch the cylinder head.



* The VCR 329 model uses a 1 Scart type jack. Therefore, there is no hole on the left side of the rear panel. (When viewed from the front, there is no hole on the right side of the rear panel.)

7. BRIEF SERVICE INSTRUCTION

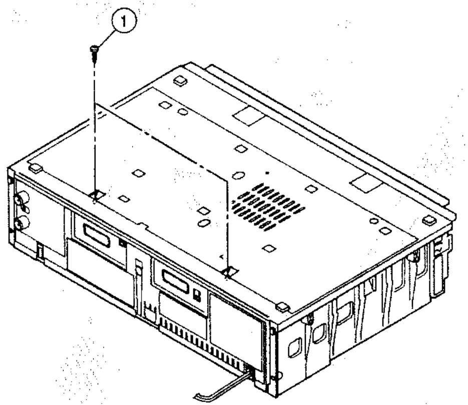
7-1. REMOVING THE MAIN PCB

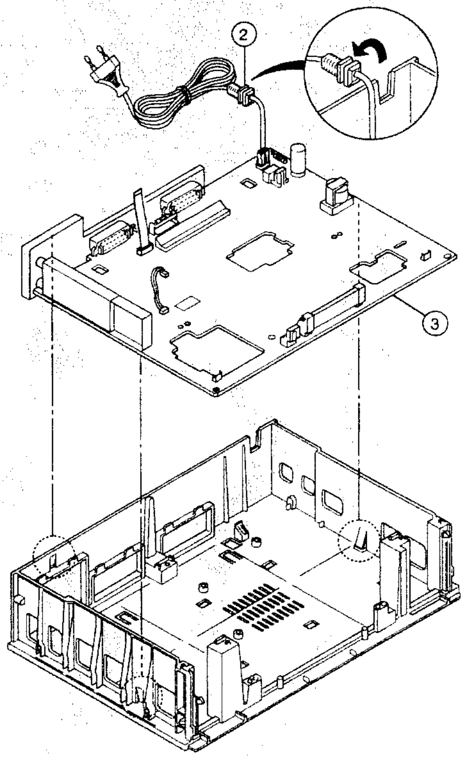
- Remove the Deck Mechanism as described in steps 6-1 and 6-2 of 6. REMOVAL OF THE DECK MECHANISM.

① Remove the two screws.

② Disconnect the Power Cord from the chassis.

③ Remove the Main PCB from the three prongs on the chassis. (Do not hold the Tuner when removing the Main PCB.) Remove the Sub PCB, if one is attached, from the Main PCB.





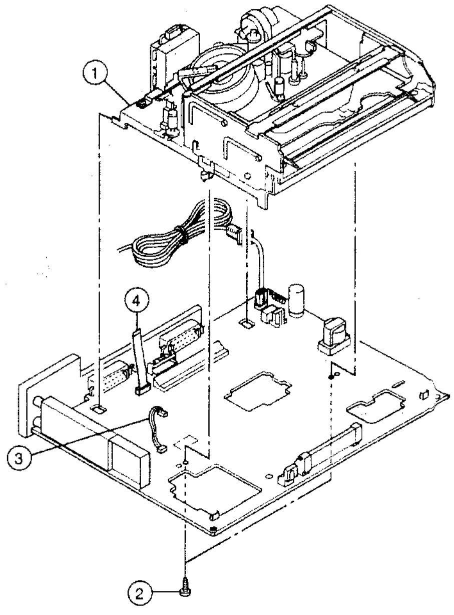
7-2. INSTALLING THE DECK MECHANISM FOR BRIEF OPERATION

① Attach the Deck Mechanism to the Main PCB removed from the chassis.

② Fix the two spacers of the Deck Mechanism to the back of the Main PCB with screws.

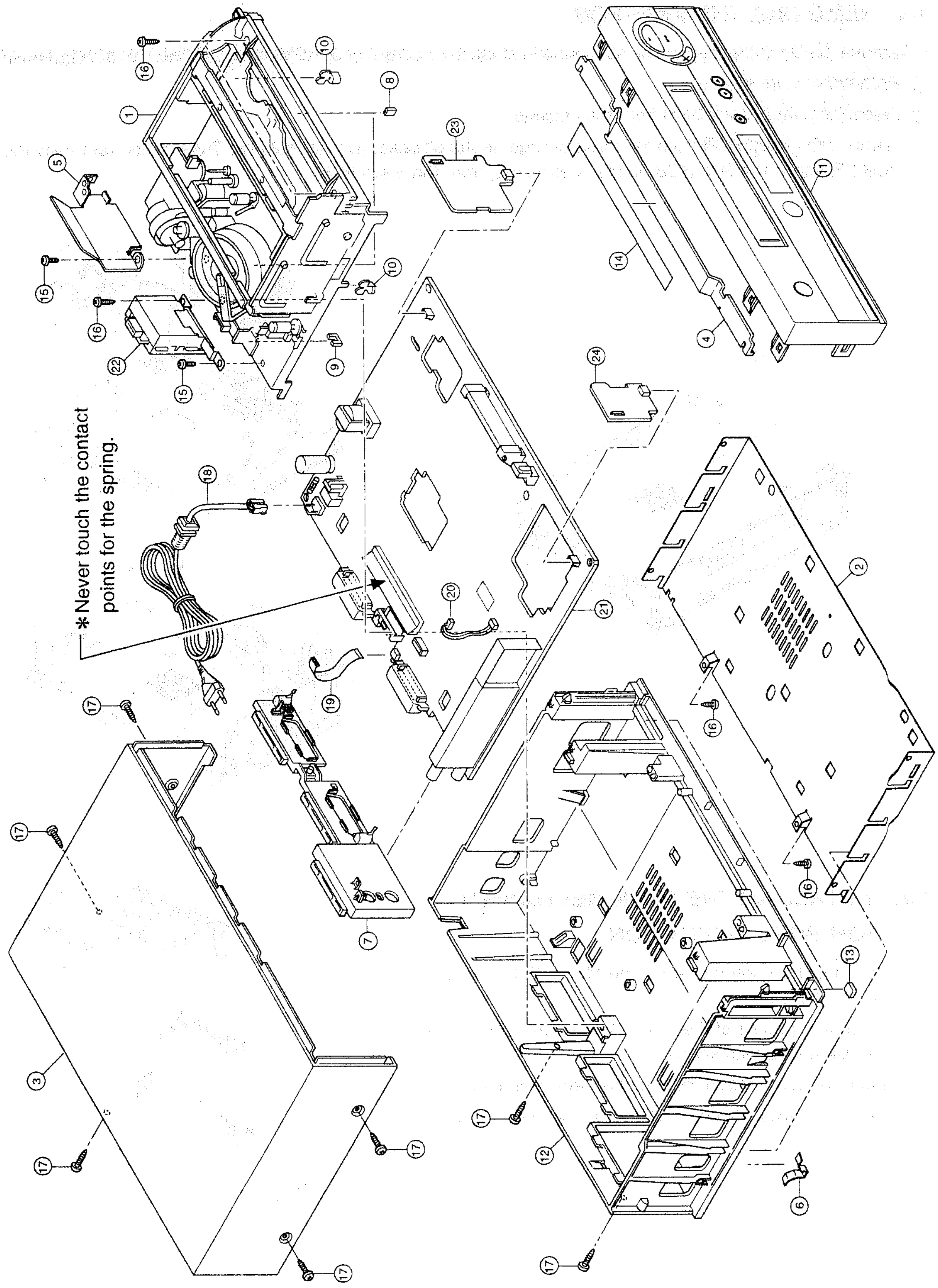
③ Attach the Connector (N401) to the Deck Mechanism.

④ Attach the Flexible Wire 9P (N201) to the Head Amp Unit.



* The VCR 329 model uses a 1 Scart type jack. Therefore, there is no hole on the left side of the rear panel. (When viewed from the front, there is no hole on the right side of the rear panel.)

8. CABINET EXPLODED VIEW


* Never touch the contact points for the spring.

16
10
8
1
23
11
5
15
10
16
14
22
9
15
4
24
18
21
20
2
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17
7
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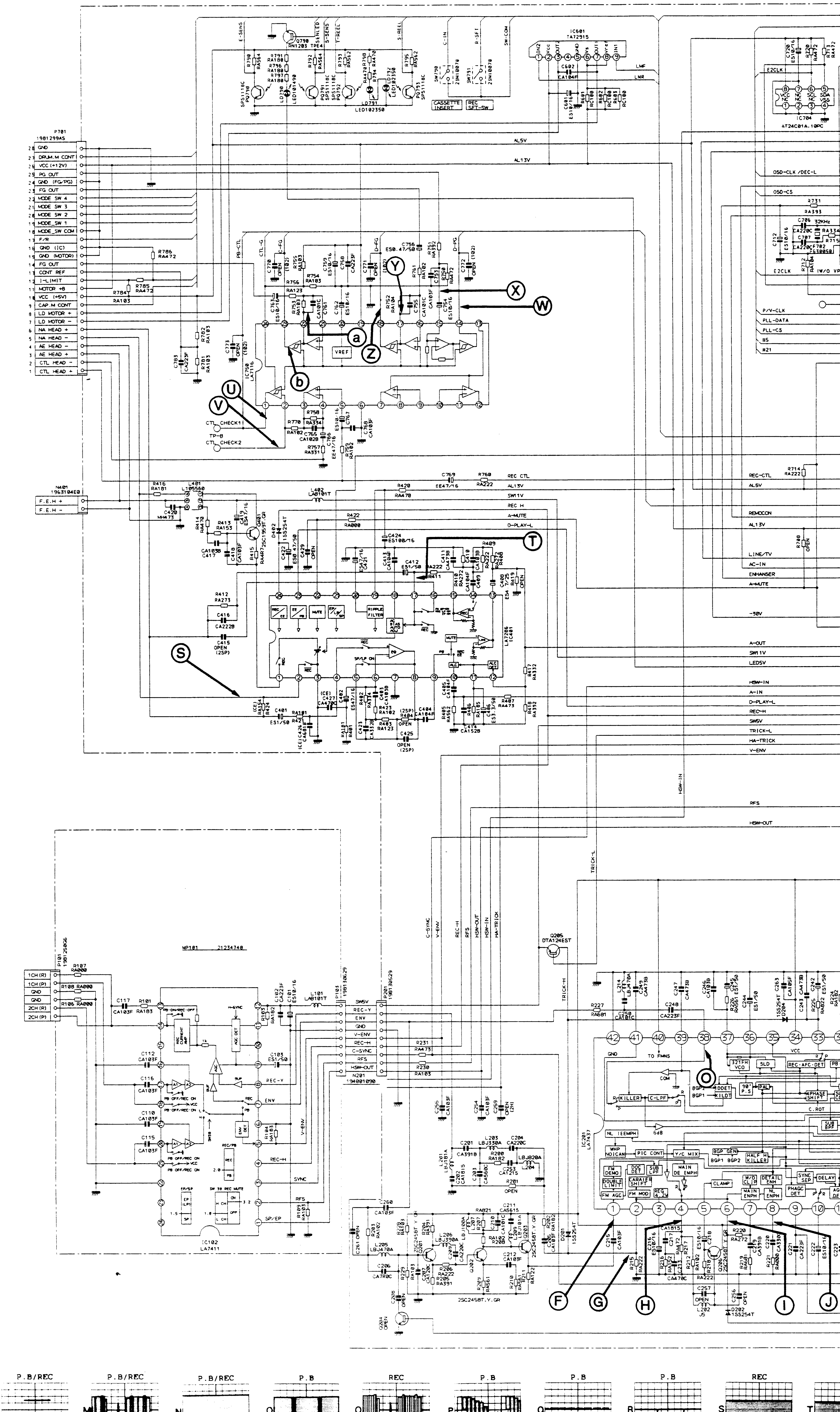
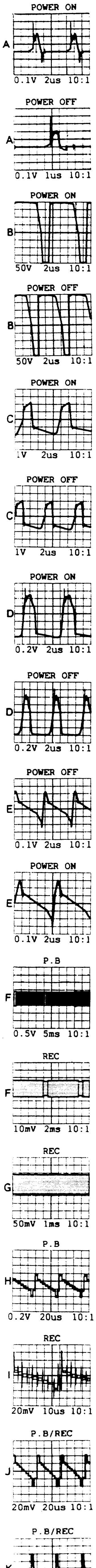
13
3
17
12
17
6
17
17

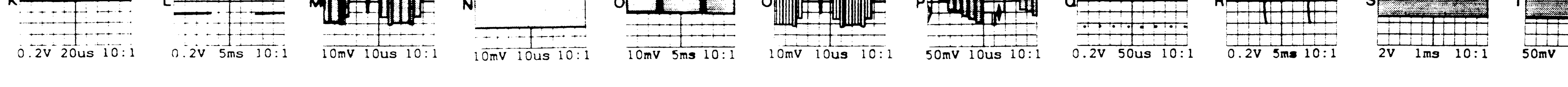
* The VCR 329 model uses a 1 Scart type jack. Therefore, there is no hole on the left side of the rear panel. (When viewed from the front, there is no hole on the right side of the rear panel.)

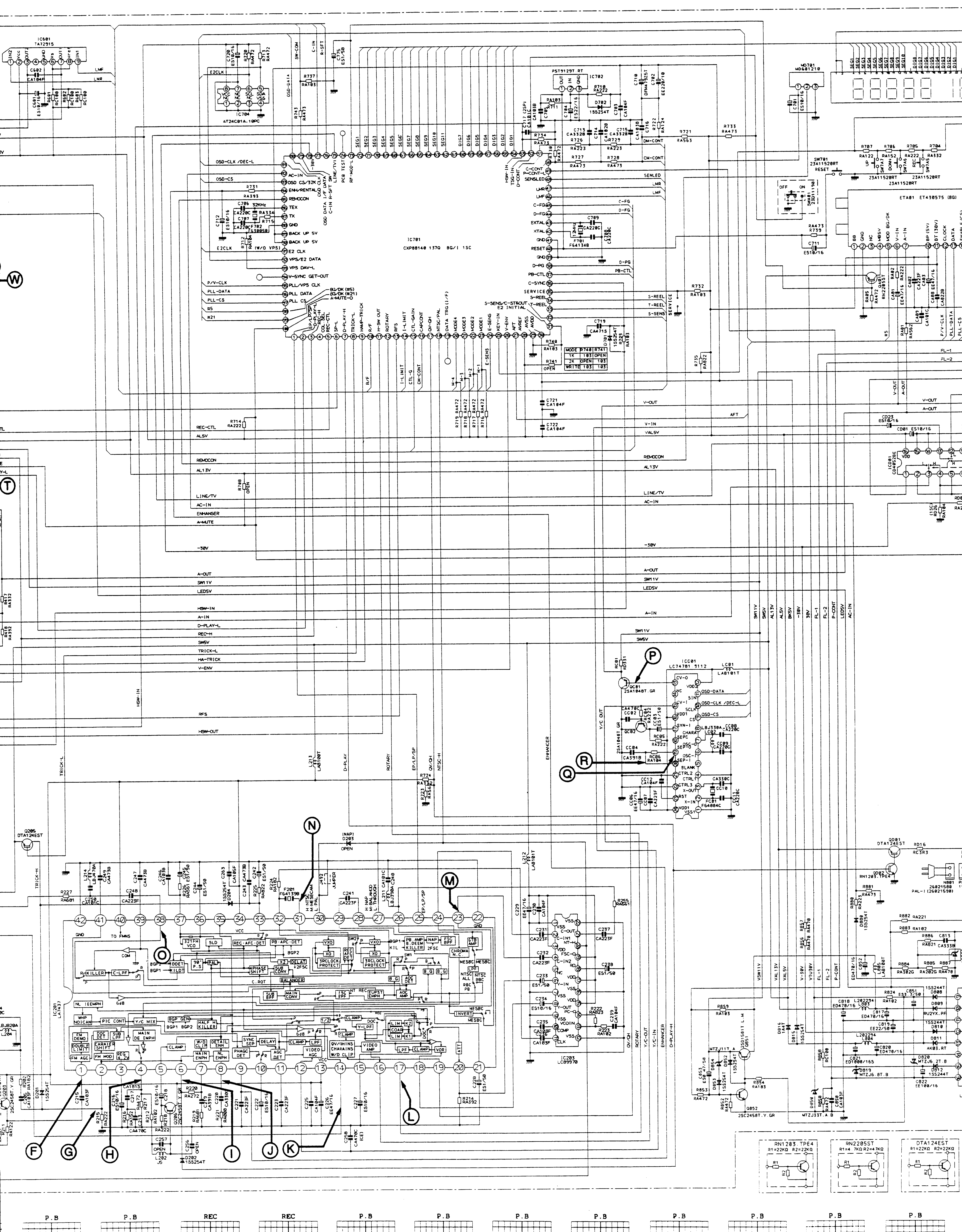
V/65.1

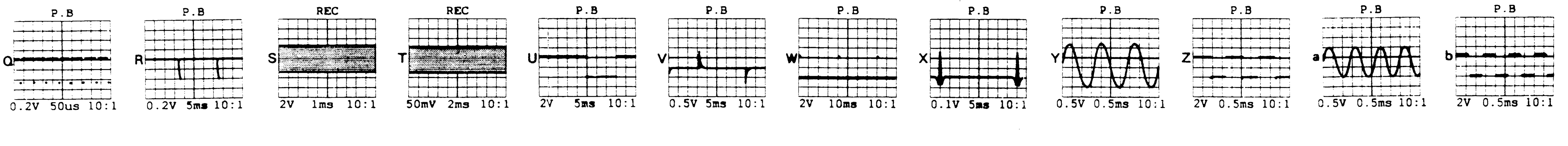
3. SCHEMATIC DIAGRAM (VCR 329)

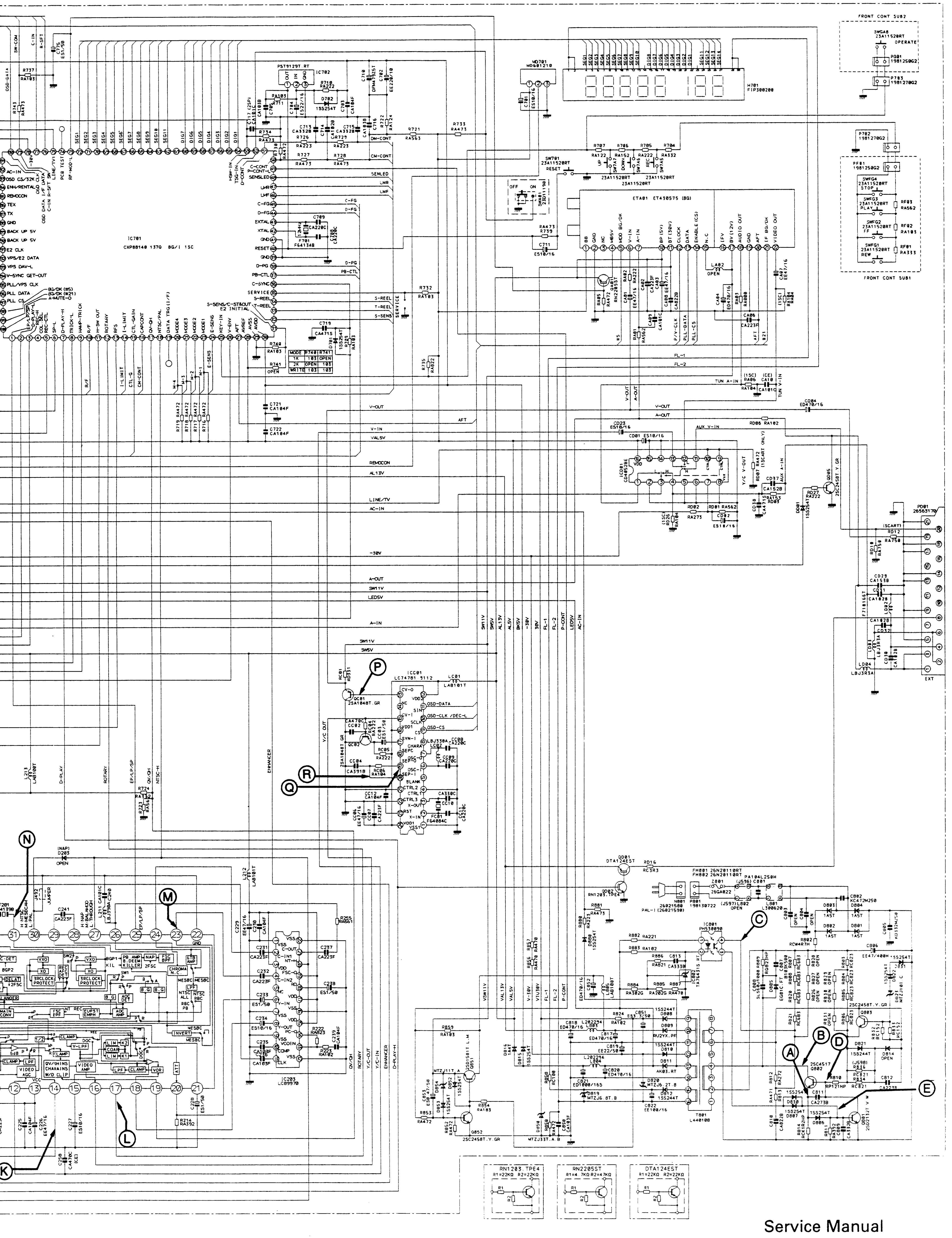

P701 1981299AS
GND
DRUM.M CONT
VCC (+12V)
PG OUT
GND (FG/PG)
FG OUT
MODE SW 4
MODE SW 3
MODE SW 2
MODE SW 1
MODE SW COM
F/R
GND (IC)
GND (MOTOR)
FG OUT
CONT REF
I-LIMIT
MOTOR +B
VCC (+5V)
CAP.M CONT
LD MOTOR +
LD MOTOR −
NA HEAD +
NA HEAD −
AE HEAD −
AE HEAD +
CTL HEAD −
CTL HEAD +
IC601 TA7291S
CASSETTE INSERT
REC SFT-SW
IC704 AT24C01A.10PC
E2CLK
AL5V
AL13V
OSD-CLK /DEC-L
OSD-CS
P/V-CLK
PLL-DATA
PLL-CS
CTL CHECK1
TP-B
CTL CHECK2
N401 1963104E0
F.E.H +
F.E.H −
REC CTL
SW11V
REC H
A-MUTE
D-PLAY-L
REC-CTL
REMOCON
LINE/TV
AC-IN
ENHANSER
A-MUTE
-30V
A-OUT
LED5V
HSW-IN
A-IN
D-PLAY-L
REC-H
SW5V
TRICK-L
HA-TRICK
V-ENV
RFS
HSW-OUT
LA7286 IC401
P101 1981258G6
1CH (R)
1CH (P)
GND
GND
2CH (R)
2CH (P)
MP101 21234740
IC102 LA7411
P103 1981106G29
P201 1981306S29
N201 1940010900
SW5V
REC-Y
ENV
GND
V-ENV
REC-H
C-SYNC
RFS
HSW-OUT
C-SYNC
V-ENV
REC-H
RFS
HSW-OUT
HSW-IN
HA-TRICK
TRICK-L
TRICK-H
Q205 DTA124EST
IC201 LA7437
2SC2458T.Y.GR
a
b
S
T
U
V
W
X
Y
Z
F
G
H
I
J
O

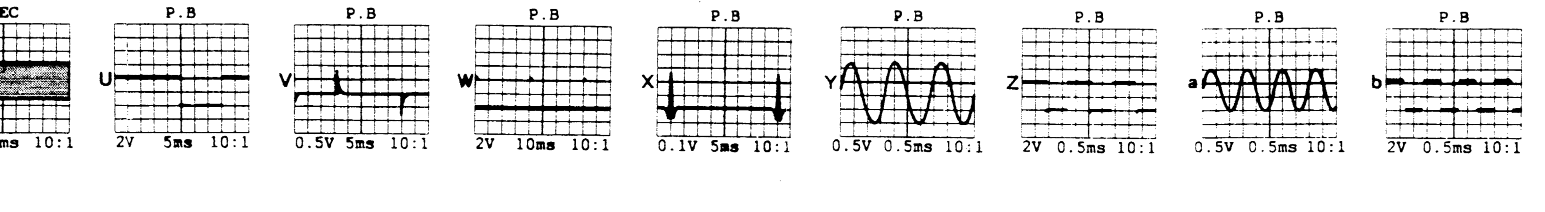





IC601 TA7291S
IC704 AT24C01A.10PC
IC702 PST9129T RT
IC701 CXP88140 137Q 8G/1 1SC
MD701 MD601210
SW701 23A11520RT RESET
ETA01 ET430575 (8G)
ICC01 LC74781 3112
IC201 LA7437
IC203 LC89970
QC01 2SA1048T.GR
Q205 DTA124EST
QD01 DTA124EST
MODE R740 R741
1K 103 OPEN
2K OPEN 103
WRITE 103 103
RN1203.TPE4 R1=22KΩ R2=22KΩ
RN2205ST R1=4.7KΩ R2=47KΩ
DTA124EST R1=22KΩ R2=22KΩ
F
G
H
I
J
K
L
M
N
O
P
Q
R
T
W

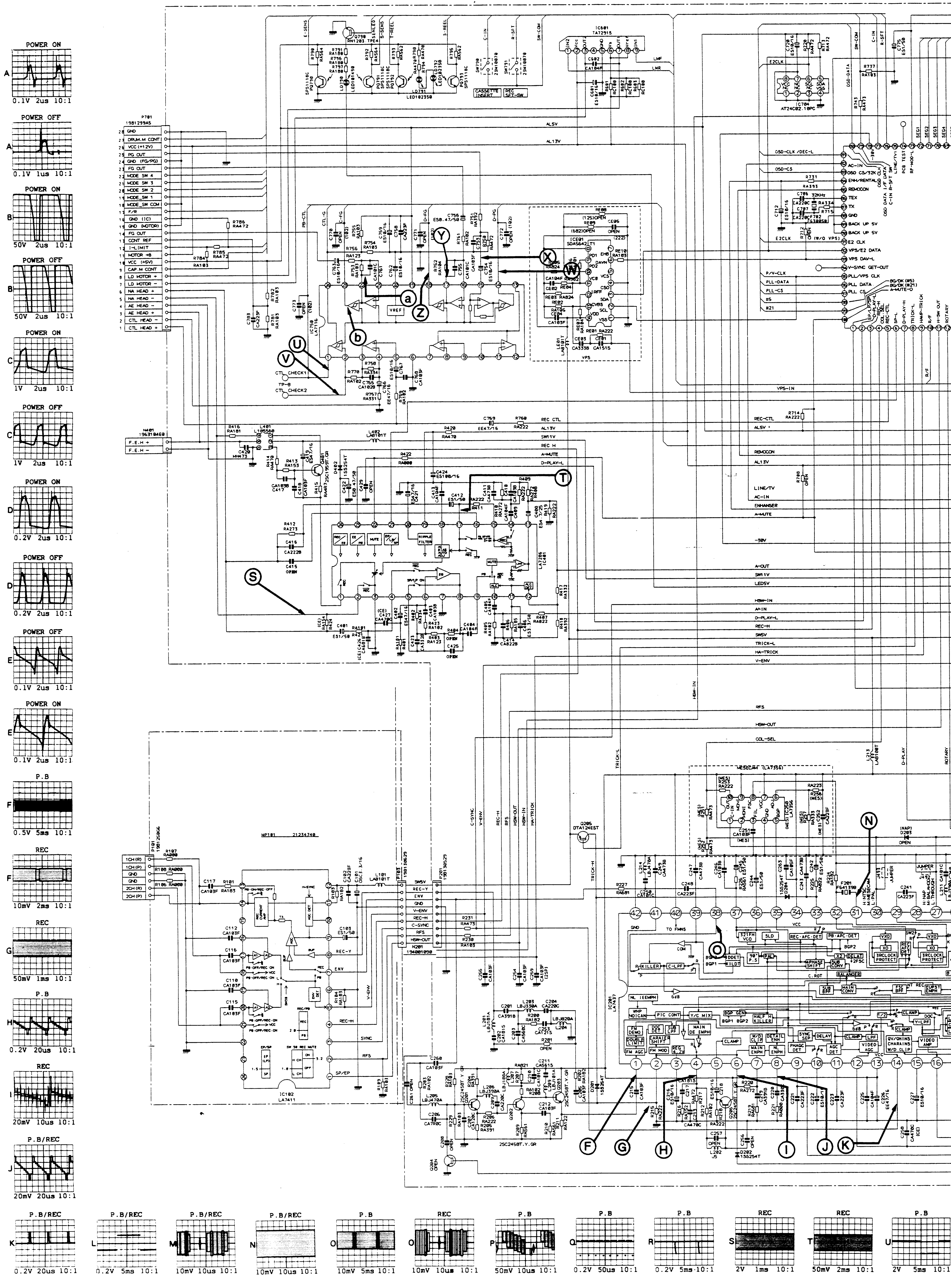

Q P.B 0.2V 50us 10:1
R P.B 0.2V 5ms 10:1
S REC 2V 1ms 10:1
T REC 50mV 2ms 10:1
U P.B 2V 5ms 10:1
V P.B 0.5V 5ms 10:1
W P.B 2V 10ms 10:1
X P.B 0.1V 5ms 10:1
Y P.B 0.5V 0.5ms 10:1
Z P.B 2V 0.5ms 10:1
a P.B 0.5V 0.5ms 10:1
b P.B 2V 0.5ms 10:1

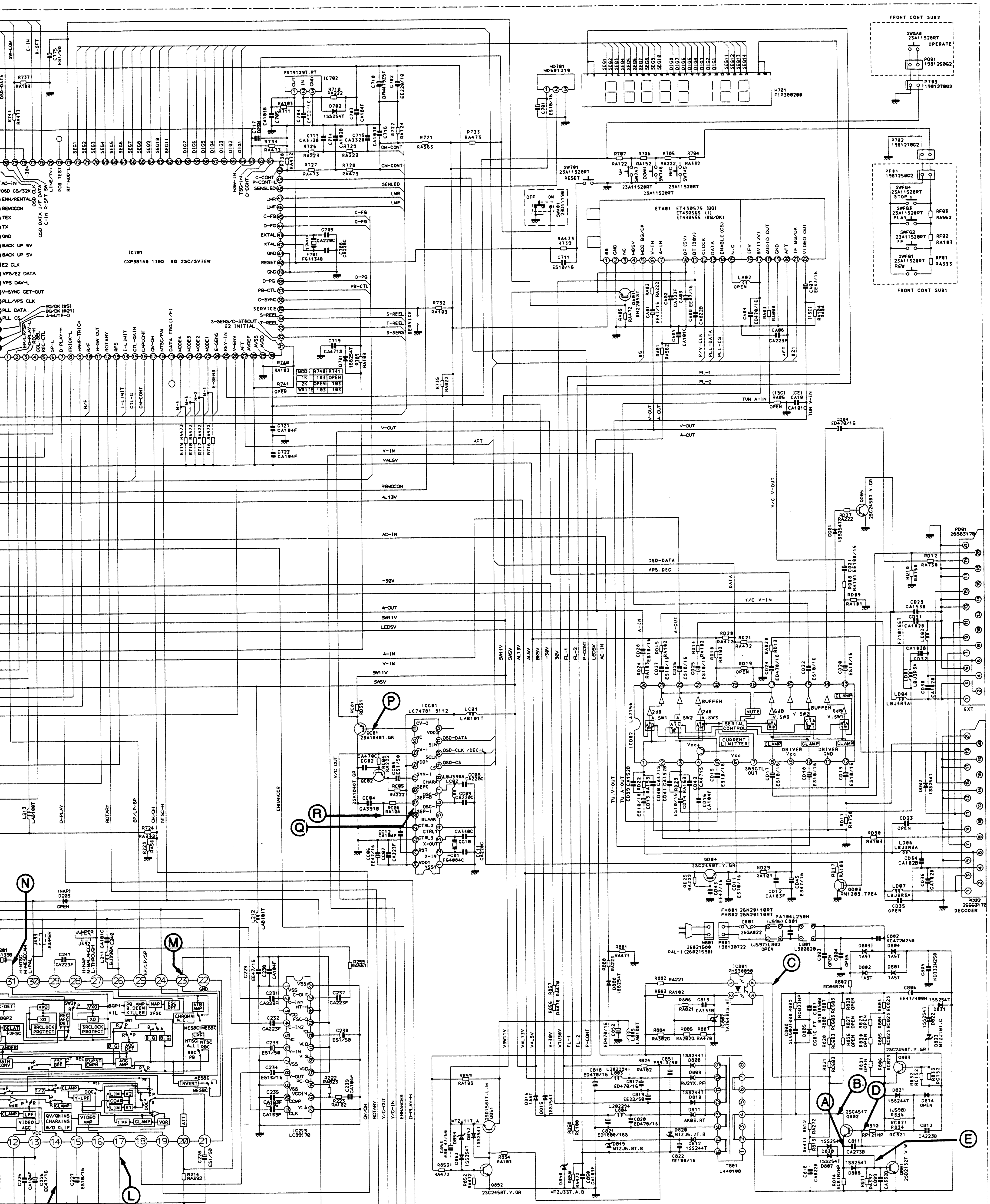

FRONT CONT SUB2
SWGA8 23A11528RT OPERATE
P001 1981250G2
P703 1981270G2
P702 1981270G2
PF01 1981250G2
SWFG4 23A11528RT STOP
SWFG3 23A11528RT PLAY
SWFG2 23A11528RT FF
SWFG1 23A11528RT REW
FRONT CONT SUB1
H701 FIP300200
MD701 MD601210
PST9129T.RT
IC702
IC701
CXP88140 137Q BG/I 1SC
SW701 23A11528RT RESET
ETA01 ET430575 (BG)
ICD01 CD4052BE
PD01 26563170
(SCART)
EXT
ICC01 LC74781 5112
QC01 2SA1048T.GR
IC203 LC89970
QD01 DTA124EST
QD02 RN1203.TPE4
ICB01 PH530890
T801 L440108
FH801 26N20110RT
FH802 26N20110RT
PA104L250H
Q851 2SD1581.L.M
Q852 2SC2458T.Y.GR
Q802 2SC4517
Q803 2SC2458T.Y.GR
Q801 2SD2121Z.V.W
A
B
C
D
E
K
L
M
N
P
Q
R
RN1203.TPE4 R1=22KΩ R2=22KΩ
RN2205ST R1=4.7KΩ R2=47KΩ
DTA124EST R1=22KΩ R2=22KΩ

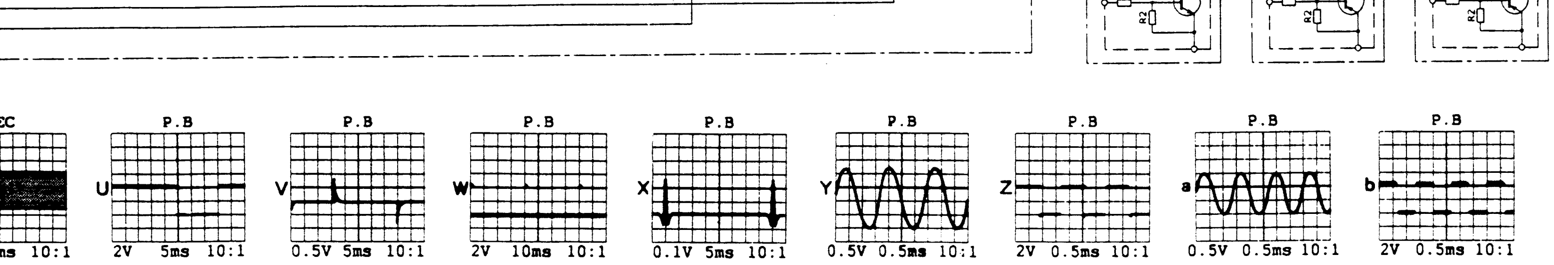


Service Manual
Video Cassette Recorder
VCR 329 No. 289C2180

SCHEMATIC DIAGRAM (VCR 330/VCR 332)

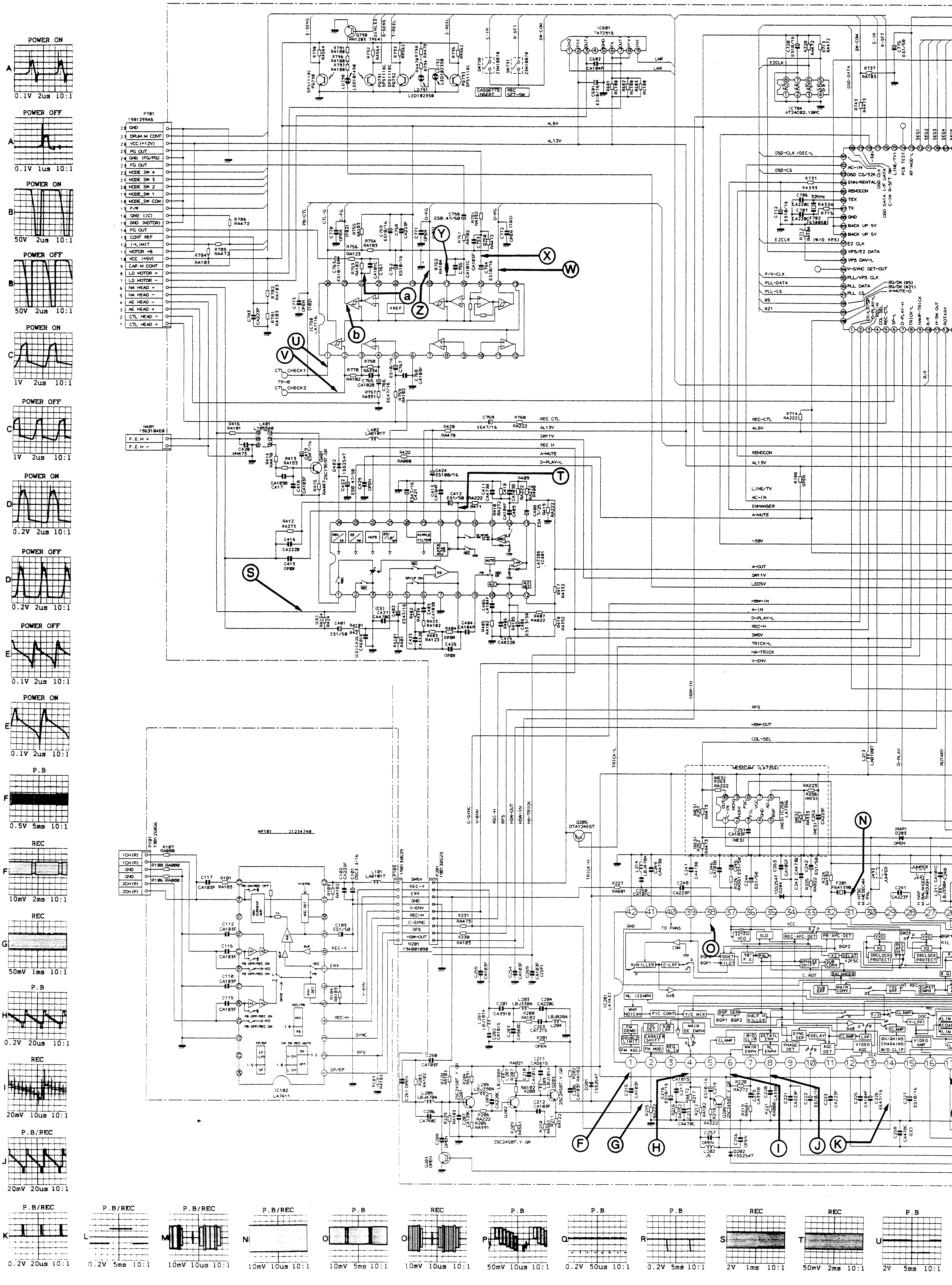

POWER ON
A
0.1V 2us 10:1
POWER OFF
A
0.1V 1us 10:1
POWER ON
B
50V 2us 10:1
POWER OFF
B
50V 2us 10:1
POWER ON
C
1V 2us 10:1
POWER OFF
C
1V 2us 10:1
POWER ON
D
0.2V 2us 10:1
POWER OFF
D
0.2V 2us 10:1
POWER OFF
E
0.1V 2us 10:1
POWER ON
E
0.1V 2us 10:1
P.B
F
0.5V 5ms 10:1
REC
F
10mV 2ms 10:1
REC
G
50mV 1ms 10:1
P.B
H
0.2V 20us 10:1
REC
I
20mV 10us 10:1
P.B/REC
J
20mV 20us 10:1
P.B/REC
K
0.2V 20us 10:1
P.B/REC
L
0.2V 5ms 10:1
P.B/REC
M
10mV 10us 10:1
P.B/REC
N
10mV 10us 10:1
P.B
O
10mV 5ms 10:1
REC
O
10mV 10us 10:1
P.B
P
50mV 10us 10:1
P.B
Q
0.2V 50us 10:1
P.B
R
0.2V 5ms 10:1
REC
S
2V 1ms 10:1
REC
T
50mV 2ms 10:1
P.B
U
2V 5ms 10:1
P701
1981299AS
N401
1963104E0
F.E.H +
F.E.H -
IC601
TA7291S
IC750
LA7116
IC401
LA7286
VPS
IC704
AT24C02-10PC
MESECAM (LA7336)
IC201
LA7437
IC102
LA7411
P101
1981258G6
MP101 21234740
P103
1981385Z9
P201
1981385Z9
N201
194001090
Q205
DTA124EST
CASSETTE INSERT
REC SFT-SW
GND
DRUM.M CONT
VCC (+12V)
PG OUT
GND (FG/PG)
FG OUT
MODE SW 4
MODE SW 3
MODE SW 2
MODE_SW 1
MODE_SW COM
F/R
GND (IC)
GND (MOTOR)
FG OUT
CONT REF
I-LIMIT
MOTOR +B
VCC (+5V)
CAP.M CONT
LD MOTOR +
LD MOTOR -
NA HEAD +
NA HEAD -
AE HEAD +
AE HEAD -
CTL HEAD -
CTL HEAD +
1CH (R)
1CH (P)
GND
GND
2CH (R)
2CH (P)
AL5V
AL13V
REC CTL
SW11V
REC H
A-MUTE
D-PLAY-L
VPS-IN
REC-CTL
REMOCON
LINE/TV
AC-IN
ENHANSER
A-MUTE
-30V
A-OUT
SW11V
LED5V
HSW-IN
A-IN
D-PLAY-L
REC-H
SW5V
TRICK-L
HA-TRICK
V-ENV
RFS
HSW-OUT
COL-SEL
OSD-CLK /DEC-L
OSD-CS
E2CLK
P/V-CLK
PLL-DATA
PLL-CS
R5
R21
CTL CHECK1
CTL CHECK2
TP-8
a
b
S
T
U
V
W
X
Y
Z
F
G
H
I
J
K
N
O


FRONT CONT SUB2
FRONT CONT SUB1
H701 FIP300200
MD701 MD601210
IC702 PST9129T RT
IC701 CXP88140 138Q BG 25C/SVIEW
ETA01 ET430575 (BG) ET430565 (I) ET430555 (BG/DK)
ICC01 LC74781 3112
IC203 LC8970
T801 L440100
PD01 2656317Q
PD02 2656317Q DECODER
EXT
SW701 23A11520RT RESET
P
Q
R
M
N
L
K
A
B
C
D
E
RN1203.TPE4 R1=22KΩ R2=22KΩ
RN2205ST R1=4.7KΩ R2=47KΩ
DTA124EST R1=22KΩ R2=22KΩ



Service Manual
Video Cassette Recorder
VCR 330
VCR 332 No. 289C2180

SCHEMATIC DIAGRAM (VCR 331)



POWER ON
A
0.1V 2us 10:1
POWER OFF
A
0.1V 1us 10:1
POWER ON
B
50V 2us 10:1
POWER OFF
B
50V 2us 10:1
POWER ON
C
1V 2us 10:1
POWER OFF
C
1V 2us 10:1
POWER ON
D
0.2V 2us 10:1
POWER OFF
D
0.2V 2us 10:1
POWER OFF
E
0.1V 2us 10:1
POWER ON
E
0.1V 2us 10:1
P.B
F
0.5V 5ms 10:1
REC
F
10mV 2ms 10:1
REC
G
50mV 1ms 10:1
P.B
H
0.2V 20us 10:1
REC
I
20mV 10us 10:1
P.B/REC
J
20mV 20us 10:1
P.B/REC
K
0.2V 20us 10:1
P.B/REC
L
0.2V 5ms 10:1
P.B/REC
M
10mV 10us 10:1
P.B/REC
N
10mV 10us 10:1
P.B
O
10mV 5ms 10:1
REC
10mV 10us 10:1
P.B
P
50mV 10us 10:1
P.B
Q
0.2V 50us 10:1
P.B
R
0.2V 5ms 10:1
REC
S
2V 1ms 10:1
REC
T
50mV 2ms 10:1
P.B
U
2V 5ms 10:1
P701
IC601 TA7291S
IC784 AT24C02.10PC
IC750 LA7116
IC401 LA7286
IC102 LA7411
IC201 LA7437
MESECAM (LA7356)
MP101 21234740
N401 1963104E0
P101 1981250G6
P103 1981030629
N201 194001090
P201 1981030529
GND
DRUM.M CONT
VCC (+12V)
PG OUT
GND (FG/PG)
FG OUT
MODE SW 4
MODE SW 3
MODE SW 2
MODE_SW 1
MODE_SW COM
F/R
GND (IC)
GND (MOTOR)
FG OUT
CONT REF
I-LIMIT
MOTOR +B
VCC (+5V)
CAP.M CONT
LD MOTOR +
LD MOTOR -
NA HEAD +
NA HEAD -
AE HEAD +
AE HEAD -
CTL HEAD +
CTL HEAD -
F.E.H +
F.E.H -
CASSETTE INSERT
REC SFT-SW
AL5V
AL13V
CTL CHECK1
TP-8
CTL CHECK2
REC CTL
SW11V
REC H
A-MUTE
D-PLAY-L
OSD-CLK /DEC-L
OSD-CS
AC-IN
OSD CS/32K
ENH/RENTAL
REMOCON
TEX
TX
GND
BACK UP 5V
E2 CLK
VPS/E2 DATA
VPS DAV-L
V-SYNC GET-OUT
PLL/VPS CLK
PLL DATA
PLL CS
P/V-CLK
PLL-DATA
PLL-CS
R5
R21
REC-CTL
AL5V
REMOCON
AL13V
LINE/TV
AC-IN
ENHANSER
A-MUTE
-30V
A-OUT
SW11V
LED5V
HSW-IN
A-IN
D-PLAY-L
REC-H
SW5V
TRICK-L
HA-TRICK
V-ENV
RFS
HSW-OUT
COL-SEL
1CH (R)
1CH (P)
GND
GND
2CH (R)
2CH (P)
SW5V
REC-Y
ENV
GND
V-ENV
REC-H
C-SYNC
RFS
HSW-OUT
SP/EP
SYNC
AGC DET
Q205 DTA124EST
Q204
2SC2458T.Y.GR
1SS254T
D202 1SS254T
TRICK-H
D-PLAY
ROTARY
JUMPER
TO FMNS
VCC
KILLER
C-LPF
DET
COM
BGP1
BGP2
321FH VCO
SLD
REC-AFC-DET
PB-APC-DET
4PHASE SHIFT
SUB CONV
C.ROT
BALANCER
NL EEMPH
WHP NOICAN
PIC CONT
Y/C MIX
BGP GEN
HALF H KILLER
FM DEMO
DOC DET
SUB LPF
MAIN DE EMPH
DOUBLE LIMIT
CARALER SHIFT
FM AGC
FM MOD
W/D CLIP
DETAIL ENH
MAIN ENPH
NL ENPH
SYNC SEP
PHAGC DET
DELAY
CLAMP
VIDEO AGC
QV/2HINS CHARAINS W/D CLIP
VIDEO AMP
A
B
C
D
E
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H
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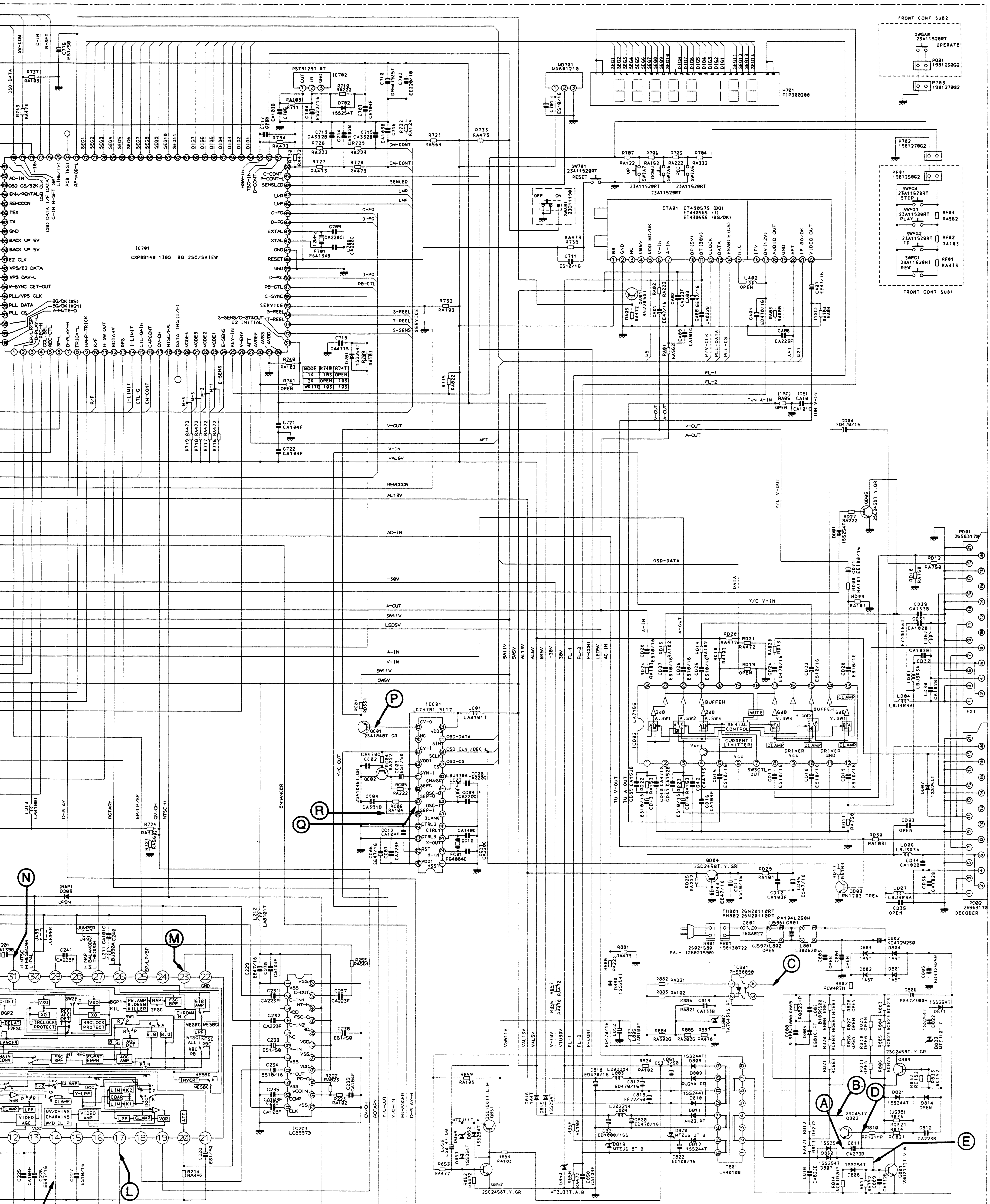
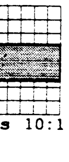
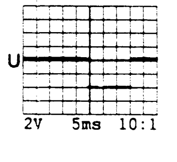
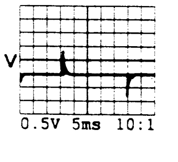
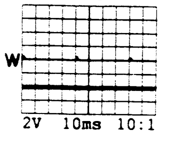
V
W
X
Y
Z
a
b

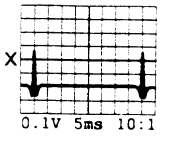

IC701
CXP88148 138Q BG 2SC/SVIEW
IC702
PST9129T.RT
MD701
MD601210
H701
FIP300200
ETA01 ET430575 (BG)
ET430665 (I)
ET430555 (BG/DK)
SW701
23A11520RT
RESET
FRONT CONT SUB2
FRONT CONT SUB1
ICC01
LC74781 9112
ICC02
LA7156
IC203
LC89970
IC801
PH530090
T801
L44108
PD01
2656317B
EXT
PD02
2656317B
DECODER
RN1203 TPE4
R1=22KΩ R2=22KΩ
RN2205ST
R1=4.7KΩ R2=47KΩ
DTA124EST
R1=22KΩ R2=22KΩ

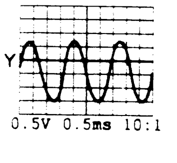


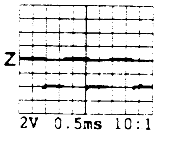


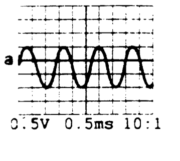


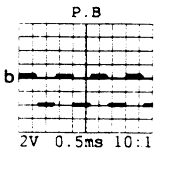












Service Manual
Video Cassette Recorder
VCR 331 No. 289C2180